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MARGINALIA

Forms in Sunlight

Much-discussed and long-awaited, the scheme for Muslim housing outside Casablanca by ATBAT-Afrique (or ATBAT, see AR, September, 1956) now affords a concrete example of the application of the housing standards worked out by CIAM, but under circumstances of extreme economic pressure. As the air-view shows, 1, a large part of the scheme, in single storey accommodation with patios, is at a density that—though lower than the adjoining 'bidonvilles' is still spectacularly high by European standards. The scheme is saved from diagrammatic monotony, however, by the provision of communal open spaces threaded through the close-packed housing, and by three taller blocks, two planned slab-wise and one as a compact tower, all designed for through-ventilation at all levels, and enclosed patios on every floor, giving the feeling that a traditional Kasbah had been dismantled into its elementary components and then re-assembled in a kind of space-frame. The result, 2, provides the kind of accommodation that the climate and the Muslim pattern of life require, while at the same time creating a sophisticated European constructivist sculpture on the grand scale of which the constructivists once dreamed, but under a blaze of sunlight such as they could never have hoped for in Tatlin's Moscow or Lissitsky's Berlin.

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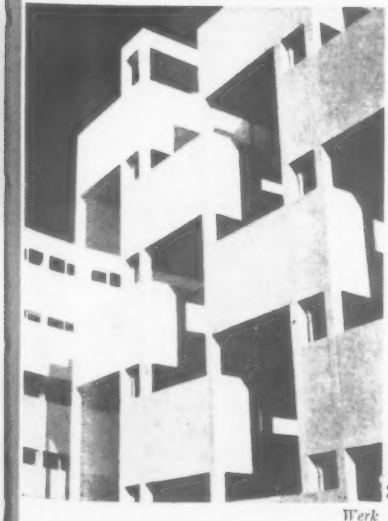


2

Werk

The Art of Re-issuing VI

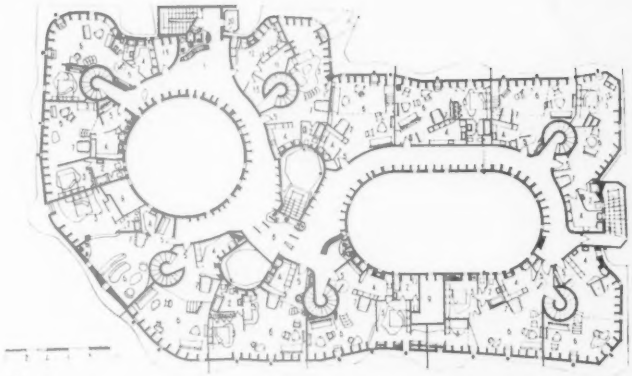
England's first native architectural book that was purely 'Modern Movement' in outlook was F. R. S. Yorke's *The Modern House*, which appeared in 1934, and had been preceded only by translations, such as those from Le Corbusier or Bruno Taut. As it first appeared it was a profession of faith, a polemical weapon, a gesture of defiance in the face of garden-suburb Neo-Georgian and By-Pass Variegated half-timbering, and the buildings it illustrated were as familiar to two generations of architecture students as Palladio's must have been to eighteenth-century Burlingtonians.

Now, twenty-three years later, its battles have been won, and the eighth edition, much revised, is like an old soldiers' retrospect of forlorn hopes, desperate stands, raids and victory. The introductory chapters, virtually unaltered, recall the battle cries and the war-aims, the heroes and the visions; still set in uncompromising Gill Sans, they have acquired no gloss of period charm, but distil the spirit of an embattled generation in a way that may still surprise and excite the young, or enrage and repel the old and the prematurely senescent.

But with the buildings illustrated the position is different. They are a record of achievement, certainly, but they are also the record of the Modern Movement's progress from muscle-flexing aggression to suave and refined acceptance. They no longer illustrate a concentrated programme of reform, but survey the richness and variety that have been attained in a quarter of a century. If the eighth edition has a hero it is Marcel Breuer, rather than Walter Gropius; it includes such comparative oddities as Hans Scharoun's *Landhaus Schminke* and Harris Armstrong's canyon cottage in Missouri; and it finishes now with Philip Johnson's Wiley, Rockefeller and Hodgson houses, preceding Mies's Farnsworth House and Corb's Jaoul—and the fact that no unbridgeable gap really separates these last two is the true measure of what has been achieved since 1934.

Gaudi's Garrets Refurbished

One can hardly envy Francisco Corsini the position in which he found himself when commissioned to make over and render habitable the attics and garrets of Antoni Gaudi's Casa Mila apartment block in Barcelona. A-formal in their disposition, and covered by skewed parabolic vaults on ribs at 80 cm. centres, these upper rooms were to be made into rentable apartments. Some aspects of Corsini's solution were given, such as making access corridors around the existing light-wells, 3, but in the rest he shows a mixture of logic and fantasy that is a fair measure of the problem Gaudi had unwittingly left him. Where an Anglo-Saxon architect would almost certainly have opted for rectangularity, in order not to 'compete' with the vaults, Corsini has used free-forms extensively, coupled with the use of brick, clay-tiles, ceramics and other 'natural' materials in an entirely programmatic way. In spite of this, there is a certain amount of standardization in the fitted carpentry, such as tables and cupboards, and in the detailing of the balcony-fronts of the bedroom floors which have been fitted under the crests of the vaults, 4, to make what are, effectively, duplex apartments.



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4

Informes de la Construcion

New Shape in Milan

With the design of the Pirelli skyscraper returning closer to the rectangular Milanese norm with every successive redesign, it seems likely that Luigi Moretti will be left securely in the lead among designers of Milan's most extraordinary building forms. He has just completed the large and intricate complex of buildings behind Sant'Eufemia that began with the split-slab, warp-ended block for Palmolive, and the final element, 5, is a tower of flats, roughly lenticular in plan, above a podium of offices and draughting-studios. As will be seen, the cantilevering forward of this slab's blank end, to the point where it catches the sun against a shadowed background, provides a spectacular townscape feature and focus of attention among all the confusions of commercial rococo and sub-baroque.

5

Morris Exhibition

William Morris died in 1896. An interval of sixty years between the lifetime of an artist and one's own time is propitious for a reassessment of the values for which he stood. He is no longer topical; nor is he any longer old fashioned. Two new possibilities for appreciation arise—the historical proper and that of a new topicality. In the case of Morris both apply and the William Morris Society, which was founded last year, has this double *raison d'être*. It can now be seen clearly that Morris as a designer of patterns was supreme in his century and it is no accident that younger architects have begun to look round once again for wallpapers or textiles designed by Morris in order to use them in their ensembles.

Typography up to now had hardly shared in this revival. The exhibition which is now being held at the St. Bride's Foundation Institute off Fleet Street and which will move on August 19 to Leighton House in Kensington and on September 16 to Manchester Central Library after which it will go to Glasgow, cannot fail to contribute to such a revival. The catalogue is exceedingly well done and describes Morris's connections with printing, lettering and illumination more fully than has ever been done before.

The exhibits range from Incunabula via *The Germ*, the Pre-Raphaelite magazine of 1848, the *Oxford and Cambridge Magazine* of 1855, and the best commercial printing of the 1880s to William Morris's own illumination, to the Century Guild and its *Hobby Horse* which preceded the Kelmscott Press and beyond the Kelmscott Press to the work of other private presses in Britain and abroad. It is a most impressive display.

British S.A.H.

A Society of Architectural Historians has been in existence in the USA since 1940 and after initial difficulties is now flourishing, with about a thousand members, and publishing a lively quarterly; practically everybody who is anybody in the field of architectural history, whether training architects or teaching art historical students, takes part in it as is shown by the list of those serving as directors, which includes Kenneth J. Conant, Henry-Russell Hitchcock and Philip Johnson. A few months ago a few enthusiasts centred around northern universities, notably Mr. Frank Jenkins of the School of Architecture, Manchester, decided at the suggestion of Dr. Turpin Bannister that it was time that something ought to happen here, and some weeks ago a meeting to further the foundation of an English Society was held in York at the Institute of Architectural Study (the future headquarters of the society) which was addressed by Mr. Howard Colvin, who gave an absorbing account of the historiography of English architectural history: there are, he said, three approaches—first, the architectural, discussing the actual building only like an archaeologist lacking all written documents; secondly, the historical; and thirdly, a recent addition, the art-historical.

The English society will be independent, but affiliated to the American society and, though it is right to keep close contact with the parent society, one must beware of becoming an appendix concerned with minor problems of merely local interest. The Society hopes to publish an annual volume of papers to be distributed to members. There will also be an annual conference—that of the American Society taking place in conjunction with the College Art Association and so giving it a definite art historical flavour, bridging the gap between architecture and the fine arts; and if such subjects are discussed as 'Some Aspects of Architectural Theory' and 'Criticism from the Renaissance to the Twentieth Century' (1956) or 'Redefinition of Styles' (1957) important work will certainly be done.

One must, therefore, hope that all interested in architectural history will join (£2 2s. a year, students £1 1s.) and moreover that many 'patron members' (from £5 5s. a year) will be forthcoming so that the most important aim of the parent society will be reached: 'to foster an appreciation and an understanding of the great buildings and architects of all historic cultures.'

Applications for membership should be addressed to the Honorary Secretary, Society of Architectural Historians, Great Britain, School of Architecture, University of Manchester, Manchester, 13.

CORRESPONDENCE

Failure of the New Analysis

To the Editors,

SIRS,—Mr. Gomme, in his recent note in the REVIEW (AR, March, 1957, page 199) might well have pursued his argument further. Having proved beyond doubt that high densities are in themselves meaningless, and are no indication of urbanity, he omitted to state that high street-density, even when allied to compactness, would still not be enough. Urban planning requires urban architecture. A typical New Town terrace would hardly benefit by being longer, or a few yards closer to the similar terrace across the road. In the New Towns, the generally uninspired, provincial quality of the architecture, the lack of contrast in the true sense (which cannot be achieved simply by placing a ten-storey block of flats in the middle of a housing estate) are as much the cause of their failure as the open spaces and misuse of land. Whatever principles may guide the planning of a town, it is clearly of great importance that the nature of the architecture reflects those principles.

Yours, etc.,

GEOFFREY NEWMAN.

Hove, Sussex.

Andor Gomme replies: *I think one trouble with the new towns is that their architecture isn't provincial enough. You can stand anywhere in (new) Hemel Hempstead and not be sure whether you're in Crawley or Stevenage—or in the new extension of Swindon. It's the end of Southampton and the beginning of Carlisle all over again—even if the houses are nicer to look at. Contrast with this the intense localism of seventeenth-century domestic architecture in Oxford, in a style which literally doesn't exist outside the city and which makes Oxford a place instead of an area. Lancaster, York and Newcastle are full of uninspired provincial architecture: they're among the finest towns we have. Islington has at least four local styles of architecture, which makes it one of the most attractive boroughs of London. The trouble now seems to be that architects are asked to design 'a row of houses' (to go behind a garden behind a fence behind a verge behind a footpath behind a verge behind a concrete kerb) instead of 'a street in Crawley' (or Swindon). Perhaps this is what Mr. Newman is stressing in his last sentence. But I wish I were more certain about 'contrast in the true sense' (he's right about the odd loose tower of course): what I think needs emphasizing now is the contrast of Bath and Clifton, or what makes Canonbury and Bloomsbury so subtly different and yet so equally in the London way.*

Iron Church in Chile

To the Editors,

SIRS,—The enclosed photograph is of a church which I have recently visited at Arica in northern Chile, said to have been built by Eiffel. It is entirely of iron except for a wooden roof supported by exposed iron vaulting. The nave has four bays with clustered piers, painted to represent marble, and wrought iron spandrels enclosing plate tracery. The interior effect is quite winsome, with walls and roof painted a soft greenish blue and the vaulting, tracery and window surrounds white.

I shall be extremely interested to know whether Eiffel is known to have visited this remote Chilean port, or if this church is an early example of prefabricated iron building—possibly shipped out from France in sections? No one whom I questioned on the spot seemed to know or care in the least about the answer.

If my description sounds rather amateurish it is because I am one of your lay subscribers who follows with admiration your efforts to induce ordinary citizens to use their eyes and collective influence in shaping our everyday surroundings.

Yours, etc.,

MARY STEWART EVANS.

London, S.W.3.

Archer Abroad

To the Editors,

SIRS,—The letter from Mr. Edmund Esdaile in your July issue raises several interesting points. Archer's travels on the Continent can be dated with certainty, not in 1689–93 as hitherto supposed, but 1691–95. The evidence for this is a Travel Pass issued on January 10, 1690/91: 'Pass for Mr. Gilbert Shelden and Mr. Archer recommended by the Bishop of London, to go to Holland' (S.P. Dom. Warrant Book 36, p. 22). There can be little doubt that the Mr. Archer was in fact Thomas and not his elder brother who is elsewhere referred to as 'Mr. Archer Parliament man.' The four years abroad must therefore have been 1691–95, and the war with France implies that if Archer went to Italy he must have travelled via Germany and Switzerland, or the Tyrol. Sedlmayr has pointed out that Austrian Baroque was virtually the creation of Fischer von Erlach in the years 1690–1700, so that Archer may well have been on the spot.

There are resemblances between his work at Chatsworth and the Stadtpalais Liechtenstein (Domenico Martinelli, 1692–1705) in Vienna, and the pavilion at Wrest (1702–12) seems to be related to the Pilgrimage Church at Waldsassen (Georg Dientzenhofer, 1685–89). Finally, there is the curious fact to which you have recently drawn attention that, at the height of the Palladian dictatorship, there appeared an English edition of Fischer von Erlach's *Entwurff einer historischen Architektur*. The first English edition, as your readers will remember, came out in 1730. It was followed, surprisingly, by a second edition in 1737. Although it cannot be affirmed that Archer had anything to do with this translation, it does seem to indicate an unexpected Anglo-Austrian link.

Yours, etc.,

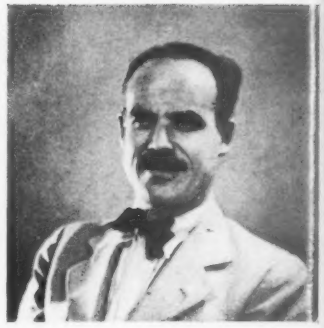
PETER MURRAY.

Courtauld Institute, W.1.

Intelligence

The Council of the Royal Society of Arts have appointed Misha Black, O.B.E., to be a Royal Designer for Industry in recognition of his work for exhibition and interior design. The distinction of RDI was established in 1936 by the Royal Society of Arts and is the highest honour to be obtained in the field of industrial design. The number of living recipients is strictly limited.

Architect of the Coach Hotel at Dover (pages 117-118), **Louis Erdi** was born in 1909 at Daruvar, Yugoslavia; his father was a Hungarian architect. Educated in Budapest, he took his degree in architecture at the Swiss Federal University, Zurich, worked in Switzerland and Hungary and with his father in Yugoslavia, on flats, hotels, houses and factory extensions; came to England in 1939, worked five years with a London architectural firm interested in prefabrication and automation. He started his private practice in 1947; other interests: music, painting, indoor gardening and photography.

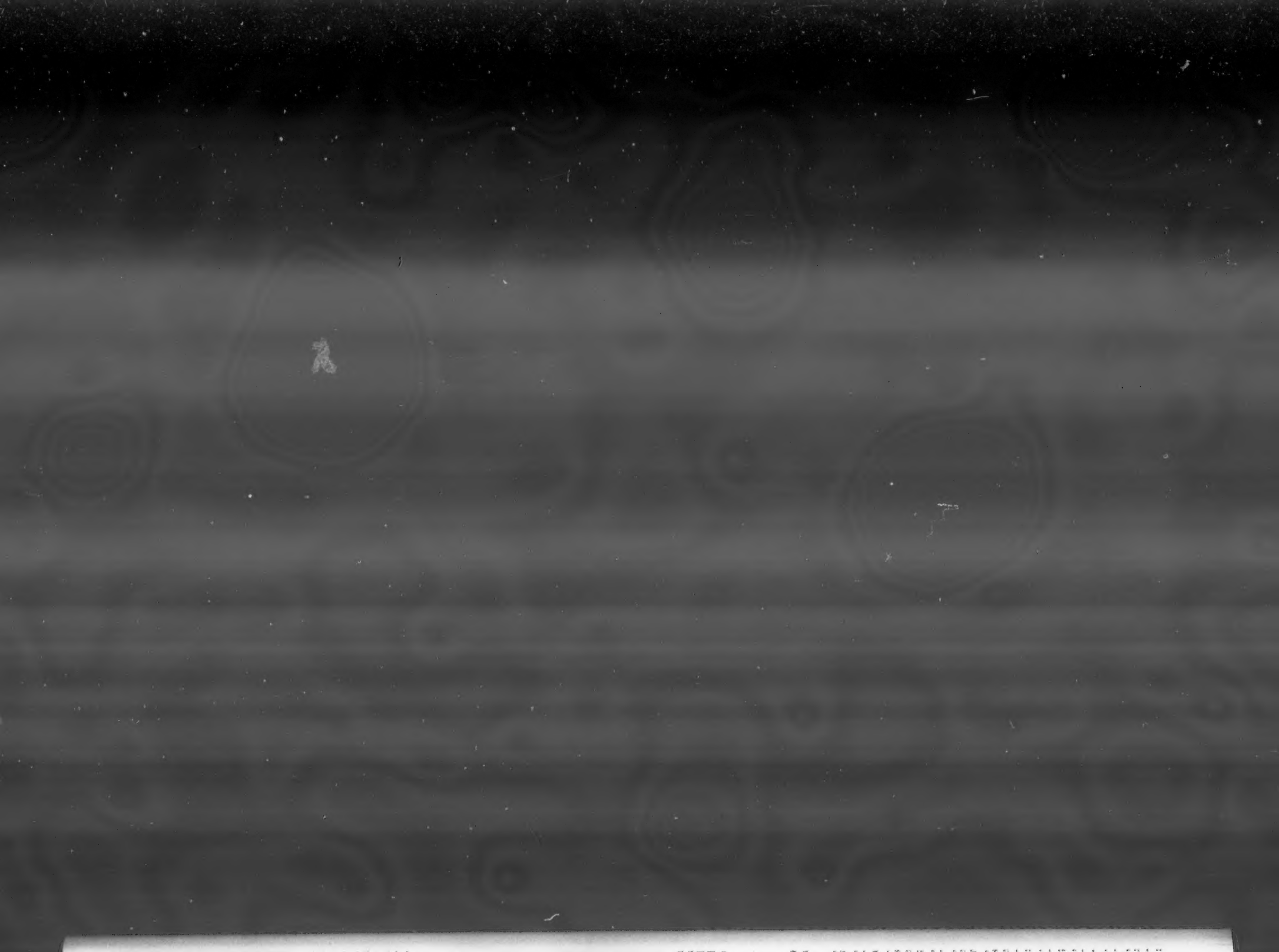


Architect of the Hotel in Stockholm (pages 119–120), **Georg Varhelyi** was born in Budapest in 1914 and settled in Sweden in 1939. The Hotel Malmen is his first work as an independent architect.

ACKNOWLEDGMENTS

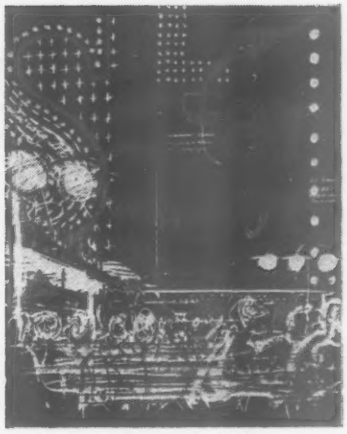
The colour blocks on pages 137–139 appear by courtesy of Mr. John Wright.

URBS IN RURE, pages 92–97: 8, Vasari. VILLAGE HOUSING IN SUFFOLK, pages 98–102: Galwey, Arphot. TRAINING COLLEGE AT WIMBLEDON, pages 106–110: 2, 3, Colin Westwood; rest, Galwey, Arphot. AN ITALIAN MISCELLANY, pages 111–118: 2–7, S. Lang; 10, Direzione Civici Musei; 13, Mansell Coll.; 14–16, Museo Civico, Padova; 17–19, 21, 22, Georgina Masson; 20, Gabinetto Nazionale delle Stampe; 23, Soprintendenza ai Monumenti delle Marche, Ancona. COACH HOTEL AT DOVER, pages 117–118: Galwey, Arphot. HOTEL IN STOCKHOLM, pages 119–120: 1, Inge Holm; 2, 3, 4, Atelje Wahlberg; 5, 6, K. Bernhard. CURRENT ARCHITECTURE, pages 127–8: 1, Galwey, Arphot; 2–4, John Maltby. MISCELLANY, pages 129–136: Functional Tradition, 1, John Piper; 2, Erie de Maré. Exhibitions, 1, Toomey, Arphot; 3, Hermann Weishaupt; 6, Nathan Rosenberg. Paintings, National Museum, Warsaw. Travel, Roderick Cameron. COUNTER-ATTACK, 1, 2, Mathieson, Arphot; 3, Windsor and Eton Express. SKILL: Interiors, pages 137–9, Galwey, Arphot. Design Review, pages 140–1: 1–4, Toomey, Arphot; 5–7, Heal's.



THE ARCHITECTURAL REVIEW

Volume 122 Number 727 August 1957



This month's cover, drawn by Kenneth Browne, explores the possibilities of illuminated advertising in the urban scene, when that advertising is in planned relationship to the architecture, is proper to its disposition—whether horizontal or vertical, seen against the grids of the architecture or against the blank of the sky—and proper to its own nature as bulbs or tubing, and not imitating solid lettering illuminated from without. The possibilities and problems of these gay intruders into the urban scene (including an occasional use of movement, such as a filling glass) are discussed in an article on pages 122-126, occasioned by the new proposals for advertising in Stevenage Town Centre.

87 **Marginalia**

88 **Correspondence**

90 **Frontispiece**

91 **Urbs in Rure** *by Hilda Selem* One of the most remarkable architectural achievements in post-war Italy has been the creation of new settlements in backward rural areas. Not only do these settlements represent a major improvement in the social and material condition of their inhabitants, but some of them have achieved great success in terms of architectural quality and the creation of urban scenery. Dr. Selem explains the special administrative and financial circumstances that helped to produce these results, and the psychological factors involved, particularly the architects' desire to treat the future inhabitants of these settlements gently, for not only were the rehoused communities suspicious of planning activities on this scale, but their traditional way of life, however squalid in some respects, nevertheless contained valuable cultural and social elements that were worth preserving as a contribution to the vitality of their new villages. In most cases this care for community life reveals itself in the creation of semi-enclosed public spaces with a strong sense of place and character, to act as natural fora for the life of the inhabitants. Such complementary planning for both community life and townscape character is the basis of all live town design, and the fact that it is not completely forgotten in England is shown by the description of the scheme for Rushbrooke in Suffolk, which follows Dr. Selem's article.

98 **Village Housing in Suffolk:** *Architects: Richard Llewelyn Davies and John Weeks.*

103 **Bauhaus: first phase** *by Helmut von Erffa* The Bauhaus has contributed most to the development of modern design as the fountainhead of a strict, responsible and austere conception of the designer's responsibility in an age of machine-production, but in its earliest days in Weimar it presented a very different picture of expressionist enthusiasms, religious and mystical fervours, a handicraft attitude to design. Professor von Erffa recalls the atmosphere of the Bauhaus at the beginning of the Twenties in Weimar, the enterprising activities of its students, the dominating figure of Johannes Itten who invented the celebrated preliminary course, and the succession of visiting poets, eccentrics, and fanatics who galvanised the attention of the students from time to time—culminating with the visit of Theo van Doesburg, whose arrival heralded the end of first stage, and a complete change of atmosphere and intentions.

106 **Training College at Wimbledon** *Architects: Yorke, Rosenberg and Mardall*

111 **An Italian Miscellany** Beside the great names and dominant themes that tend to monopolise the attention of students of Italian architectural history, there are many tributary themes and unclassifiable individuals who have contributed to the living body of that history's development, and these four notes touch upon some of them: the *Heads at Capua* discussed by S. Lang are an unusually late example of looting from a Roman remain; in *Pedrocchino and some Allied Problems* Nikolaus Pevsner examines the intrusion of Anglo-Gothick ideas into Italian Neo-classicism, and particularly the improbable Gothicising extension added to Pedrocchi's coffee-house in Padua by Giuseppe Jappelli; and in *Children's Prison in Rome* and *Vanvitelli's Lazaretto at the Port of Ancona*, Georgina Masson gives accounts of two buildings embodying advanced ideas of social responsibility built for the Papacy during one of its most enlightened periods of temporal power.

117 **Coach Hotel at Dover** *Architect: Louis Erdi*

119 **Hotel in Stockholm** *Architect: Georg Varhelyi*

122 **Space to Let** *by Kenneth Browne* Stevenage Development Corporation has recently instituted an unusually liberal and progressive policy towards advertising in the New Town centre. Their proposals start from the assumption that, far from being an unmitigated evil, posters, illuminated signs and other advertising devices can make a positive contribution to the lively character of the urban scene, and indicate how this contribution can be positively designed into an integrated townscape by means of brightness zoning, and other regulations whose tendency is permissive rather than restrictive. This commendable attitude is capable of extension and development, and Mr. Browne's article illustrates with text and pictures how this could be done.

127 **Current Architecture**

Miscellany

129 **Books**

131 **Functional Tradition**

131 **Travel**

132 **Exhibitions**

134 **Painting**

134 **Counter-Attack**

Skill

137 **Interiors: Shipping Offices, Cockspur Street, S.W.1.** *Architect: John Wright*

139 **Design Review**

141 **Techniques: Draughtproofing and Weatherstripping** *by Peter Whiteley*

146 **The Industry**

150 **Contractors, etc.**

Author: Hilda Selem graduated at Rome University Architecture School literally with full marks; she is now an assistant in the Interiors department of the school. As the result of winning the INA Casa competition she has designed houses in many parts of Italy, from Catania to Lido di Venezia; among her other jobs have been a centre for delinquent children in the Abruzzi, the design and supervision of low-cost housing at Matera (Lucania) and a public park at Macerata. Dr. Selem has studied town-planning abroad, and in 1956 was awarded the British Council scholarship for studying the planning of London.

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THE ARCHITECTURAL REVIEW

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FIVE SHILLINGS

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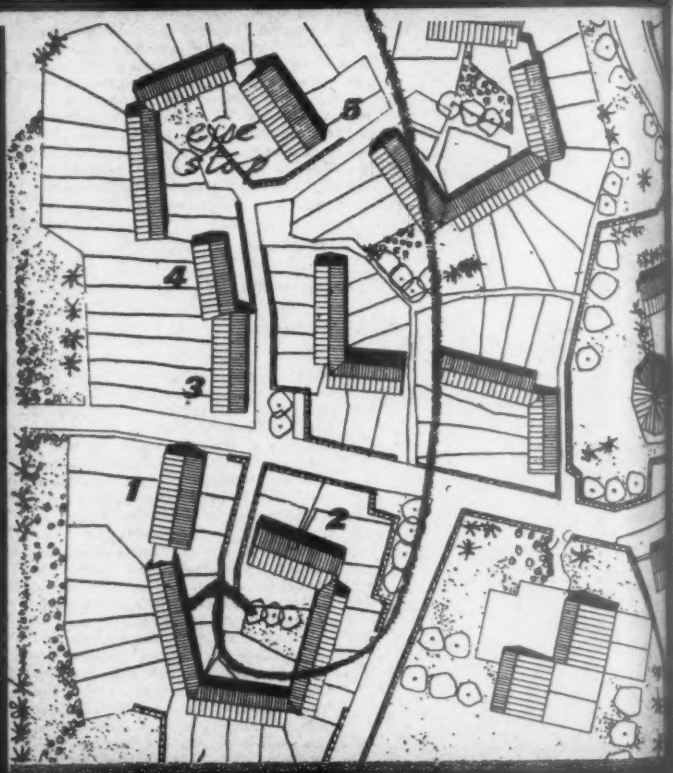
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The margin of difference between merely dumping houses in the countryside, and making an urban centre of them, is chiefly a matter of so grouping them as to create an enclosure, a sense of place. On the pages that follow, Italian and British methods of achieving this end are discussed and illustrated, and they are exemplified, opposite, by a new settlement at San Basilio, a suburb of Rome, top, where asymmetrically disposed loops of houses are laid out in a freehand manner that allows the eye to see from one enclosure into another, but never wildly out into empty country; and by Rushbrooke in Suffolk, below, where it is proposed to achieve a sense of enclosure, partly by the shapes of the houses themselves, but also by breaking up the boredom of ribbon development, a, by graded setbacks, b, and screen walls, c—these last, again, to keep the eye within bounds.

Hilda Selem

URBS IN RURE

URBAN NUCLEI IN THE ITALIAN COUNTRYSIDE

One of the most significant responses to the post-War situation in Italy, in the spheres of both architecture and social progress, has been the creation of new settlements in rural areas. The main aim of such activities has been the social, productive and moral rehabilitation of communities that were either suffering from the effects of the fighting, or from long periods of economic stagnation and neglect. In some places these pockets of social blight had become so bad that they constituted a threat to the health of society. The impetus behind planning policy and architectural practice in these cases was therefore very different from the social pressures in post-War England that have decanted large numbers of skilled, productive, physically and socially healthy townsmen into the countryside.

But there are also other important differences. Italian developments have not be sponsored by central authorities, operating on a national scale, but by local and regional bodies, such as *Ente-Sila, Ente Riforma per la Lucania,* etc., most of which are concerned with land reclamation, agricultural improvement and similar activities. This gives to development programmes a greater sense of integration into local life, and into local social progress, than is the case in most English instances, and this sense of involvement with the locality and its inhabitants has been deepened by the attitude of mind of the architects and planners themselves.

One must understand that planning of this kind is a new and strange thing in most parts of Italy. In England there exist social habits and relationships that enable the planner and architect to work efficiently without having to consider the inhabitants of their projects as much more than units in a statistical rearrangement. But in the undeveloped parts of Italy such activities may be met with suspicion or even hostility, because planning is

The small settlement at **san basilio** *on the outer fringe of the suburbs of Rome, has been designed by its architect, Mario Fiorentino, to have something of the character and natural liveliness of a village. As can be seen opposite, the means at his disposal were extremely simple— straightforward, low-budget terrace houses, garden walls, slight changes of level—but by using these to form small enclosures with a sense of place and identity, he has created an urbanity which has often eluded British designers with greater facilities and far easier budgets.*

either unknown, or has been known only as part of an oppressive political regime. The designers of Orto Nuovo (Cutro) and La Martella have had to approach their public with caution, with sympathy and imagination, because they are conscious that they are invading patterns of life and social arrangements that are ancient and ingrained, and, however squalid they may appear in some ways, still enshrine warm and valuable human relationships.

This is particularly true of La Martella, the new agricultural village in Lucania built to house workers who had been rescued from miserable cave dwellings dug in the cliffs around the town of Matera. Though conditions in these *Sassi* were so bad that a large proportion were adjudged incapable of being brought up to a standard where they would be fit even for animals, the inhabitants had evolved a social structure well adapted to their living conditions and their work in the remote fields, had acquired a certain moral dignity and spiritual strength, and enjoyed a way of life that was both human and civil. Such a way of life possesses cultural and folkloristic qualities that are worth conserving, and can only be preserved within the way of life.

La Martella was therefore built 'with art, but not geometry,' endeavouring to impose no formal pattern, however elegant, on the life of the inhabitants but creating, by the widening and constriction of the streets in which the new houses were ranged, a series of open-air fora that could contain and focus the warm and vivid social life that had flourished on the steps and terraces of the *Sassi*, while the design and construction of the houses themselves went further even than the architect had originally foreseen in deferring to local preferences and local materials, in order that the good aspects of the life of the inhabitants should be disturbed as little as possible.

Other settlements have presented different problems—at Orto Nuovo special provision has had to be made for the activities of rural craftsmen, while San Basilio is really a type of suburban settlement, only fifteen kilometres from Rome itself—but in both cases the planning aims to create for every group of households a natural forum for its social activities, and the type of architecture aims to find something valuable and expressive in family life and local traditions.

The experimental and unconventional nature of much of this work is to be attributed in part to the reaction against a rather diagrammatic functionalism that prevailed in Italy after the War, and partly due to the freedom enjoyed by Italian architects working for these fairly small regional organizations. Unlike their English contemporaries, caught up in the co-ordination of the conflicting claims of numerous powerful authorities, and left with little to do but follow a statistical routine, Italian architects working on the creation

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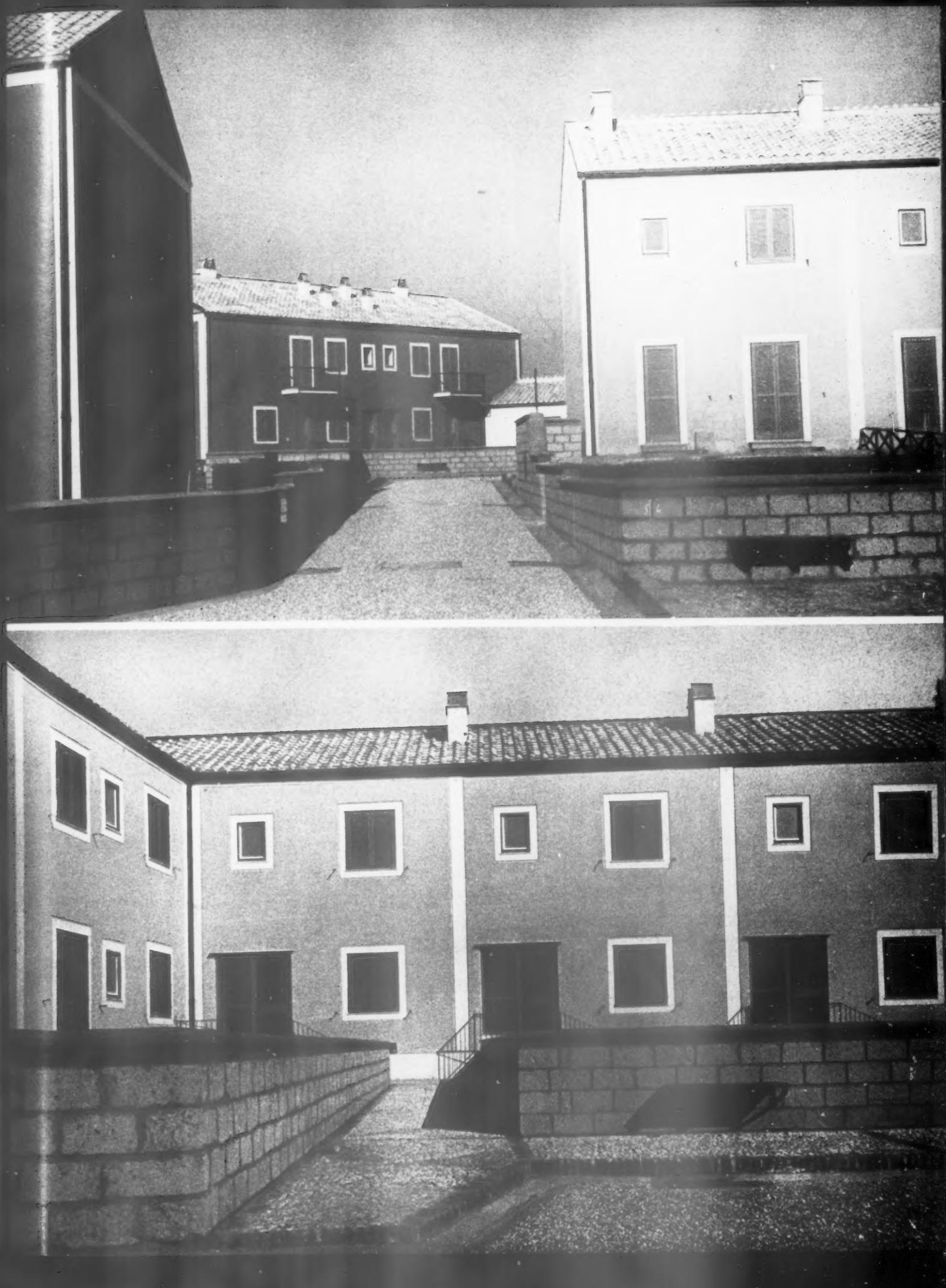

san basilio, *The planning of San Basilio, 3, depends upon the simple device of disposing the houses in open loops that are large enough to include a few front gardens but not so large that the sense of enclosure is destroyed. Within each loop is the natural focus of its social life, a pocket of open ground, public but not vehicular, provided with seats on the rough-cut tufa walls. 4. The loops of houses are neither continuous nor closed. It is possible to see from one focal zone towards another, but direct views into another loop are usually interrupted by the end or gable of one of the blocks. 5.*

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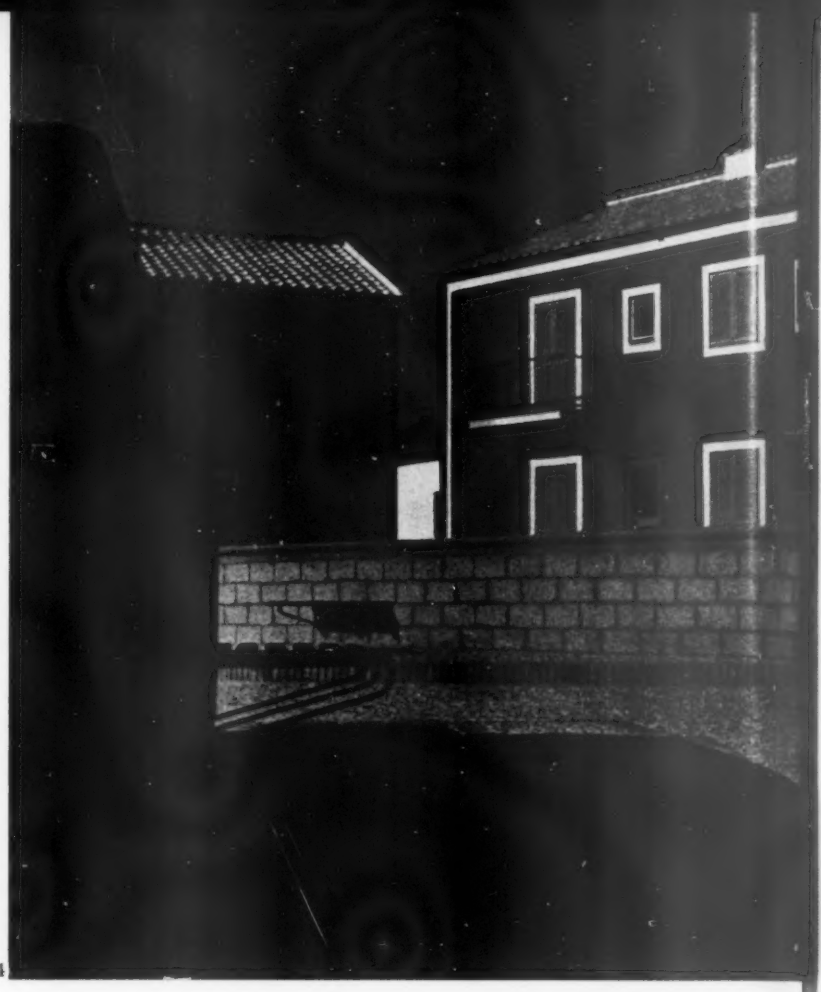

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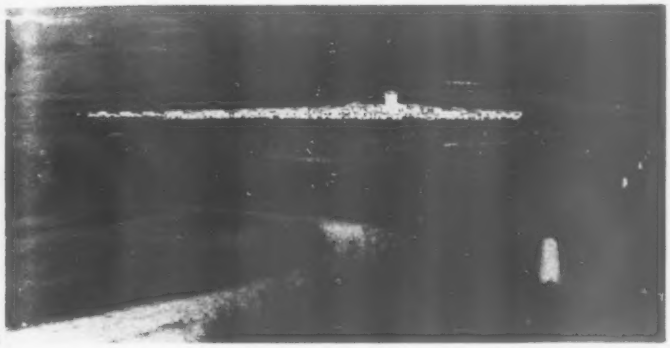
la martella, *in Lucania, represents one of the most heroic acts of social reclamation undertaken in Italy since the war: a community of farm labourers was removed from insanitary cave dwellings of appalling squalor, and resettled in a new clean village, 6 and 7, with its own fields on the open plain. That the new village was not just a 'clean slum' is largely due to the originality and imagination of the design team led by Lodovico Quaroni, and their sympathetic approach*



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to the displaced peasantry and their traditional mode of life. The planning-concept was of loosely-aggregated streets of houses and stables widening and narrowing to make foci for the social life of the inhabitants, 8, and this, combined with

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the uninhibited use made by the architects of local materials and structural methods, produced a townscape that is as successful as it is unique, 9 and 10, urban in feeling, yet unmistakably agricultural in character as befits a peasant community.

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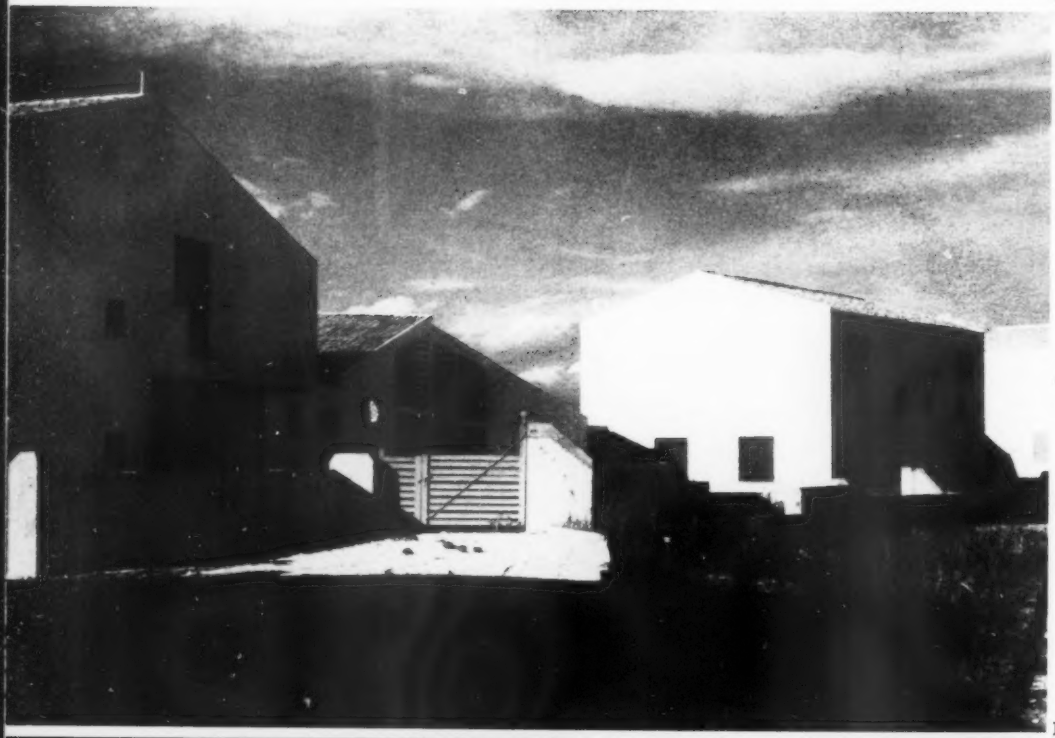

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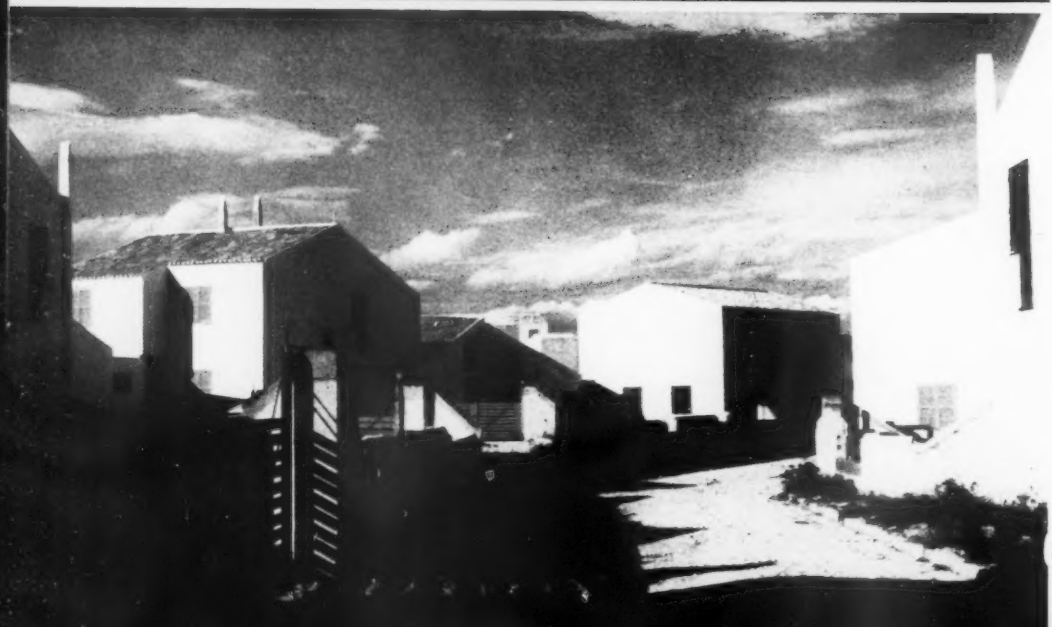

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la martella, *though not large, is nevertheless a town. It has its own character and it has its focus of urbanity around the church, 11, which is permitted a degree of formality, as in its square tower and its entrance steps, but still falls within the programme of building 'with art but without geometry' that the architects set up as a guard against preconceived planning notions. As at San Basilio, building work was financed from UNRRA funds, and the budget was too restricted to permit of anything but the simplest of structural methods and local materials. House-types and elements such as doors, windows, grilles, etc., have been almost completely standardized, as can be seen in 12 and 13, and these bring the discipline of repetition into a townscape otherwise characterized by considerable freedom in the disposition of buildings in relation to one another and to the roads that serve them. This seeming freedom, however, is as programmatic as the use of standardization, and serves to create the continuous changes of view, the openings-out and constrictions of the scene, that create the local senses of place within the larger identity of La Martella as a whole. The result is still, clearly, a town of people living close to the subsistence line and not endowed individually or collectively with any surplus of goods or equipment. Yet for all its dirt roads and simple construction, the town is as rich in character as its inhabitants, and the two characters are complimentary. Of how many well-equipped, landscaped, conscientiously variegated post-war developments with properly metalled roads in northern Europe could the same be said?*

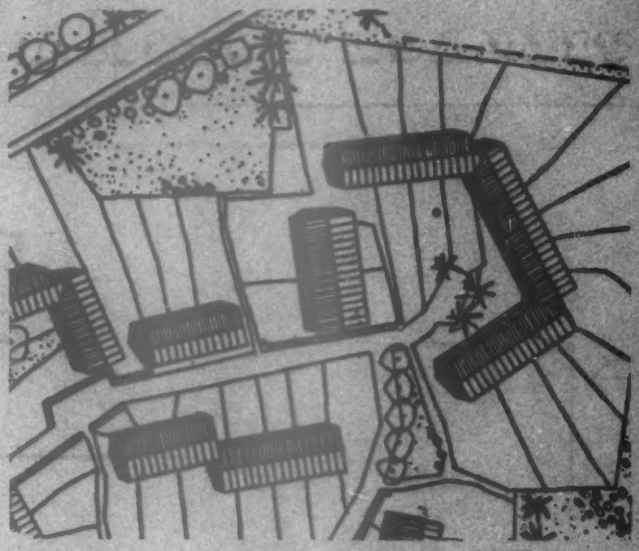
Yet the ability to design in this vein, and introduce the right kind of urbanity to the rural scene is not a preserve of Italian architects. We can do equally well in England, given propitious circumstances and the right intentions. On the pages that follow, are descriptions and illustrations of a promising beginning made by Richard Llewelyn Davies and John Weeks at Rushbrooke in Suffolk.

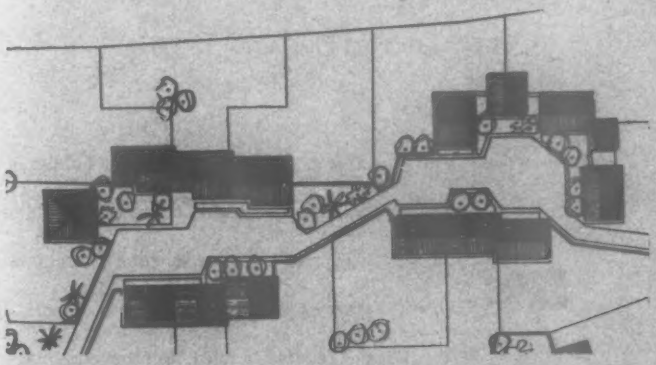
[continued from page 92

of these new urban nuclei enjoy the liberty to create at a regional level an architecture of humanity and warmth that satisfies the regionally differentiated needs of the inhabitants. If further support is available for these lively experiments, and a continued understanding on the part of the administration, then there is hope that the present period in Italy will achieve results immeasurably better than those of the past in the fields of housing and neighbourhood planning.

plan analysis of San Basilio, La Martella and the uncompleted scheme for Cutro

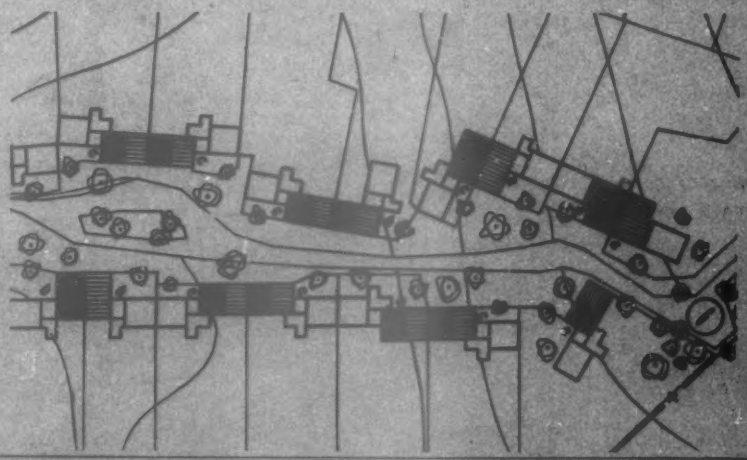
san basilio *The kind of urban landscape that characterises the new Italian settlements described on the previous pages is not the product of stock planning solutions or standard bye-laws, and the general aim—of creating natural social foci with a strong sense of place—is achieved by different architectural means in every case. At San Basilio, for instance, the basic planning unit is a loop of two- or three-storey houses, into which a service road runs and stops. The sense of having arrived is thus as strong as the sense of enclosure, and the road-head, toward which most of the houses face, is the inevitable focal point of aspect and activity.*



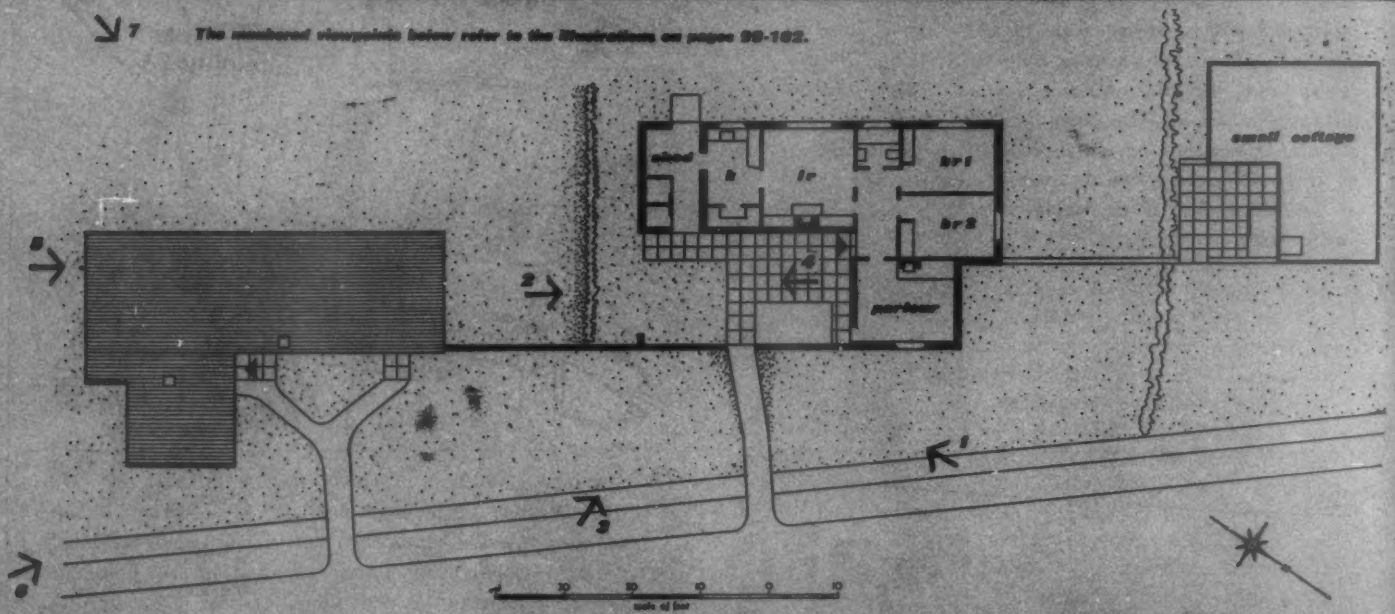


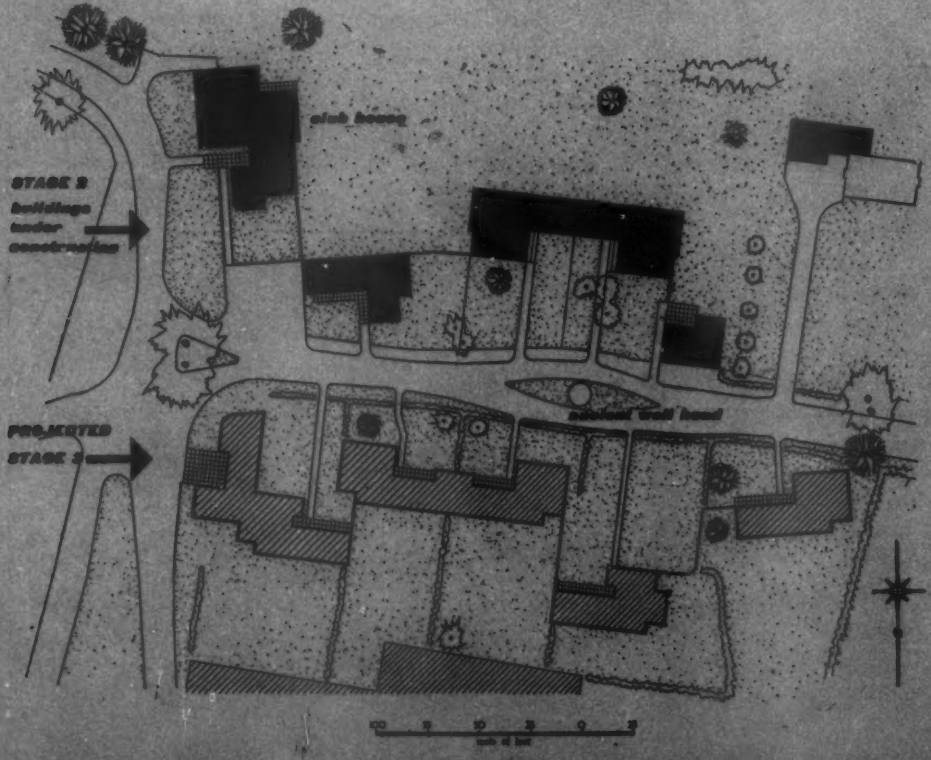
cutro *But even at San Basilio the architect, Mario Fiorentino, makes occasional use of sub-foci on through roads, usually marked by sudden narrowing of the gap between facing rows of houses. In his—as yet—uncompleted scheme for Orto Nuovo (Cutro) seven out of eleven foci are on through roads, and the sense of enclosure is given by disposing the single storey houses and workshops in a slightly formal manner around little squares or closes (that should appear slightly familiar to readers of Thomas Sharp's* Anatomy of the Village) *and by preventing any corridor-views through square after square.*

la martella *At La Martella, however, the residential planning is entirely in terms of through roads, and Quaroni's townscape would probably be a perilous example to imitate without his firm grip on the social factors involved and his sure eye. The houses seemingly straggle at an unpromisingly low density, but the visual density is fully made up by the stables and other ancillary buildings, which thus prevent destructive lateral views of empty countryside, and the roads, graded and surfaced for purely agricultural traffic, make just enough use of serpentinings or contours to prevent longitudinal corridor-views. The continuity of the road as a road is maintained, but the houses stand close enough to it for every change of orientation or building line to register with maximum effect as the creator of enclosure, locality and social focus.*



VILLAGE HOUSING IN SUFFOLK





Above, site plan of the three buildings, two houses and a cottage, which comprise the pilot scheme. The single-storey plan is the same for both houses but reverse-handed, and they are linked by a high wall which forms a court-yard to the house on the right. Left, plan of the proposed layout of the completed village. The buildings shown black are at present under construction and include a new club house. Large trees mark the extremities of the village and, instead of keeping equidistant from the road, the linked houses open out in the centre of the village to form a core.

1. the first two completed houses seen from the road. Behind the high linking wall is a courtyard with the entrance to the house on the right.

ARCHITECTS | **RICHARD LLEWELYN DAVIES AND JOHN WEEKS**

executive architect | **Michael Huckstepp**

The rebuilding of Rushbrooke, near Bury St. Edmunds, is an all too rare example of the imaginative grouping and linking of small houses in order to re-create a real, homogeneous village instead of the usual soulless repetition of evenly spaced and identical housing units. By staggering the buildings and linking them by high walls, the architects have exploited the value of enclosure and continuity of surface, and their ingenious variations on a single basic house plan have enabled them to avoid monotony while maintaining a family likeness between the houses.

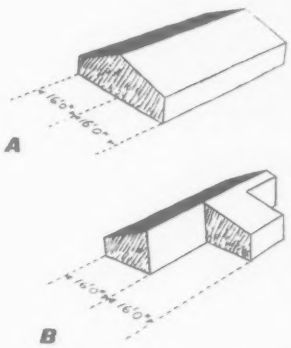
Rushbrooke is a small village with a church and about two dozen houses. There is no public house ; instead, the social focus of village life is a club run by a local committee, which provides, in addition to a bar and clubroom, facility for dances and whist drives. Nearly all the houses are occupied by local farm workers, and the existing village was inadequate to accommodate them. About half the old cottages were too small and did not lend themselves to conversion.

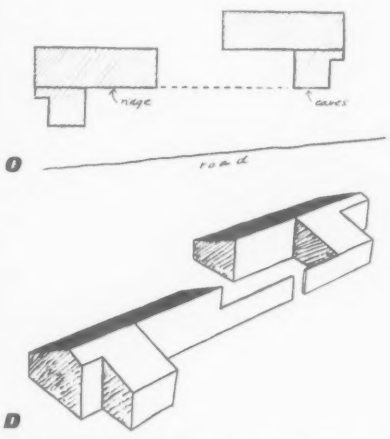
The first stage in rebuilding the village was to build two new houses on a vacant site, just beyond the edge of the village, as a pilot scheme. The second stage, at present under construction, involved the demolition and

rebuilding of four houses on one side of the village street and a new building for the village club. A final stage, with the houses on both sides of the street rebuilt, is shown here by a model. The first pair of houses, sited on a slope, have identical plans, reverse handed, and an interesting relationship has been achieved by staggering them relative to the road line and linking them by a brick wall. The entrance to the upper house is through a gap in this wall, while that to the lower house is at right angles to the wall on the face of the building. A small one-bedroom cottage, attached to these two houses, is now under construction ; this is at right angles to the first two buildings and its entrance is also through a gap in the connecting wall, with a small courtyard.

An analysis of the shape and relationship of the two pilot houses gives a key to the main methods used throughout the village : —

The house plans are contained within a rectangle 32 ft. wide, with an equal pitch roof, A. From this basic shape slices are cut away. B, sometimes right back to the ridge to show a wall rising through the full height of the house. Thus the gable end profile may be a single pitch roof or an unequal double pitch but the complete form of the gable is never shown. On plan an angled shape is produced in place of the regular rectangle. The plans are handed and also staggered in distance from the road so that the eaves of one house lines up with ridge of the other, C. They are linked by a wall which continues the eaves line of one of the buildings and the exposed spine wall of the other, D. It should be noted that high walls are an essential part of the scheme as they prevent houses from being seen as single units and at the same time provide a feeling of enclosure and, by withholding the view, one of surprise.





The houses have been designed so that they may be easily and naturally connected together to form a con-

Facing page : 2. interior of courtyard with entrance from road on the right and front door straight ahead. 3. view from the approach road, with the high linking wall between houses and in the foreground the simple trim of deep horizontal wooden rails painted white supported on black posts. Right : 4. another view of one of the entrance courtyards looking in the opposite direction to 2. 5. gable end elevation to the first two houses. 6. view from the approach road. 7. the two houses seen from the meadows behind.

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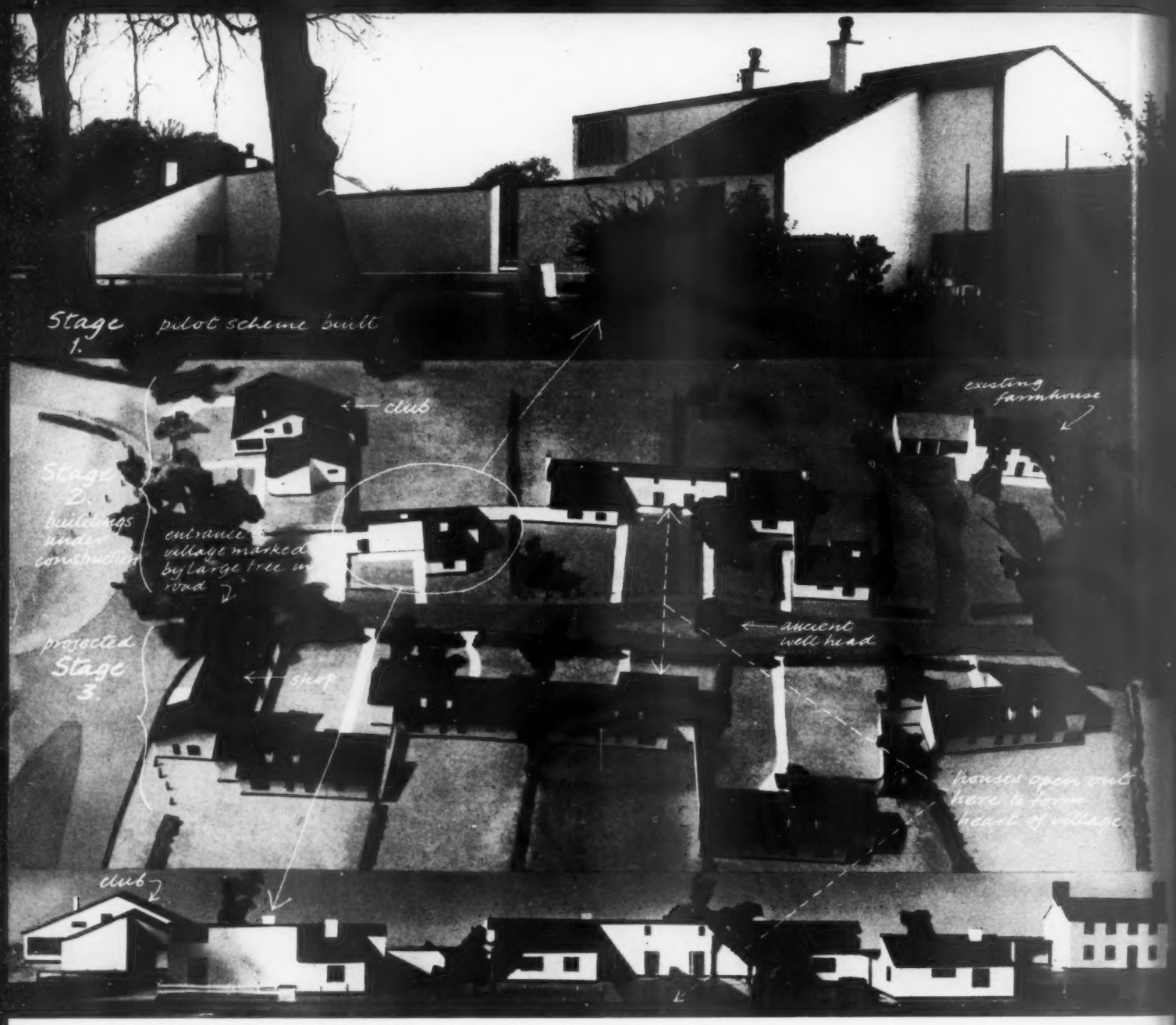


8, the centre and lower views show a model of the completed village which will be made up of variants on the two houses already built nearby (top). An essential part of the scheme is the continuous linking of the buildings to form enclosure and the opening out of the space between opposite houses in the centre of the village.

tinuous band of building along the side of the village street, while at the same time opening out to give a heart to the village. Each house is a variant on the basic plan, and can be placed in a variety of positions; it can also be connected in a variety of ways with the adjoining house. There are four types in all: a small one-bedroom cottage for single persons; two-bedroom houses with living-room and parlour; three-bedroom houses with living-room and parlour, north of the street; and three-bedroom houses with living-room and parlour, south of the street.

All the houses are of brick construction with slate roofs. They are single storey, but in each house there is a large room in the roof which can be used for storage or as a children's playroom. Each house has a storage shed enclosed by the main walls. The brick walls are painted white, the fixed portions of windows are painted black with white opening lights, traditional colouring in this part of Suffolk. The same roof pitch is used on all the houses, and the eaves' height varies according to the distance of the lateral walls from the centre line of the roof. The use of timber fencing with deep white horizontal members on black posts gives a strong linear emphasis which also helps to link the buildings together. There is to be a new building to house the club, the construction and details of which are similar to those of the houses, and it will be linked visually to the rest of the village in the same way. The club is sited on the edge of the village and not in the centre; this is because so many country people today use cars, and the noise of car engines starting up after evening parties would have been a nuisance in the village centre.

Helmut von Erffa

BAUHAUS: FIRST PHASE

At a time when a new Bauhaus has been built up at Ulm by Max Bill[1], few can imagine the courage, vision and idealism that Walter Gropius needed to found the original Bauhaus in 1919. Courage; to plan for industrial design when Germany was down and out after the defeat of 1918. Vision; to imagine and project a centre where student and teacher would work together to learn about the materials they used, and then work together with industry on new designs for products. Idealism; because Gropius went far beyond the conventional patterns of training for artist and artist-craftsman. The student who came to the Bauhaus in those early years could have no lucrative career in mind, but only the desire to develop his creative powers, and in the highly Romantic atmosphere of post-War Germany that meant that the Bauhaus became for him a way of life.

At the foundation of the Bauhaus in 1919, Gropius issued a proclamation addressed to the youth of Germany, or—we might truly say—to the youth of the world. It reads (in part) 'Together let us conceive and create a new building of the future which will embrace architecture and painting and sculpture in one unity, and will rise one day towards heaven from the hands of a million workers, like the crystal symbol of a new faith.'

This call to action rallied young men and women from all walks of life, from all over Germany and even a few from abroad. Many were art-students who had become dis-

[1]. In fairness to the *Hochschüle für Gestaltung* at Ulm, it should be pointed out that though Max Bill was its first Rector, and did heroic and universally acknowledged service in getting it started, the school is now directed by a governing council of five members, and its policy is oriented away from the idea of a 'new Bauhaus' or 'second Bauhaus' toward the elaboration of an educational policy better adapted to the needs and technical capacities of the mid-century.

satisfied with academic teaching, some were genuinely interested in the new experimental approach to education in general, which was implicit in the programme of learning-by-doing and the desire to lay bare the innate abilities of the students, and others of course were just dreamers, poets and mystics who were attracted by the idealistic and, in some ways, other-worldly atmosphere of group endeavour. Yet, wherever we came from, and whatever we contributed to the strange but stimulating atmosphere of the Bauhaus, we had all come because we believed that we could find there something that we could not find elsewhere.

We all hoped for a better life, and these hopes centred, not around Gropius at first, but around Johannes Itten. Gropius might share our simple meals in the canteen, and go walking with us, but it was Itten who was our leading spirit in those early days.[2]

His influence was strong among the students—it was not easy to get oneself accepted for his preliminary course which prepared one for the workshops, but after we had had an interview with Gropius, we still had to be passed by a kind of one-man Student Council. I remember my trepidation as I was led into the room, whitewashed and totally bare except for a huge black wooden cross on one wall. On a simple iron bedstead sat a haggard young man in a monk's habit. His cheeks were hollow, his eyes burned feverishly, and he was one of Itten's most trusted pupils—'Really a saint' my companion whispered. He looked me over while my companion stood in respectful silence, then he said something in an ecstatic sing-song voice and nodded. He had seen none of my drawings and barely heard me utter a word, but I had passed the test and was accepted. 'The master has complete trust in his intuitive judgement,' my companion explained after we had left the room.

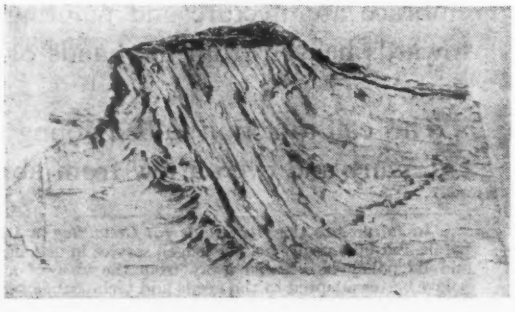
1, *the first Bauhaus seal.*

Intuition! The Unconscious! These were the master-keys of Itten's teaching. Before long we would all be using the jargon of Freud and Jung, but in 1920 and 1921 we were all trying to read the works of the mystics. Meister Eckhardt, Suso and Tauler were our constant companions, but more to us than these were Lao Tse and Chuang Tse. In the latter we found the story of a butcher who could cut meat without his knife even grazing a bone—the reason for his extraordinary dexterity being his possession of the Tao, which some scholars have translated as *logos*, though admitting the inadequacy of the translation. The point of Chuang Tse's story for us was that the butcher was somehow in touch with the cosmos, or—to be more specific—he had an intuitive comprehension of the structure and physical properties of the carcass.

Itten and his follower Georg Muche demanded that we should develop a similar affinity between our unconscious and the materials that we intended to work with. If Gertrude Grunow tried to deepen our sense of colour by having us contemplate it in a trance-like state, and did not fully succeed, it was because the ways of the East were not those of the West, as Jung explains at length in his writings. Nevertheless, the hold which this appeal to our inner selves had on some students was demonstrated by a visit, not organized by the Bauhaus, from Werner Heuser. He came in a long black robe, and a long black full-bottom beard, and whether he was a prophet or a charlatan, his fiery sermons on the *Imitation of Christ* hit some of the students very hard indeed. They started to wander off in search of the inner life of which he had spoken, and Gropius had to post a warning on the bulletin-board that those who left in the middle of the term would not be re-admitted.

2, *woodcut from the first proclamation of* 1919, *by Lyonel Feininger.*

The teaching methods that Itten used in those early days, and which were partly his invention, are now widely used in the United States—though with local modifications. He made us feel and experience whatever we drew, and, in fact, he wanted us to feel and experience every daily event, however trivial, as profoundly as possible. He made us draw a thistle so



3, *drawing showing characteristic structure of wood, by L. Leudesdorff-Engstfeld,* 1922.

[2] The novelist Erich Pfeiffer-Belli, who was an early Bauhaus student, wrote in his article *Die Maler Am Bauhaus* (*Frankfurter Hefte*, Vol. 5, No. 7, page 789) 'Itten (now Director of the Zurich Museum of Applied Art) was the strongest personality at the Bauhaus; he was a teacher in the true sense of the word, while Klee and Fieninger in their Weimar years more or less handed on what they knew in studio conversations—their paintings spoke for them.

that it would really prick you; we had to experience its sharpness and prickly character. Of course there was also a great deal of purely superficial application of early expressionist methods, like those in *The Cabinet of Dr. Caligari*, but all these hectic, jazzy, angular patterns were soon displaced by a true expressionism based on our inner experiences.

Thus, after a masterly analysis of Chinese South Sung painting, Itten made us draw a tree wet with rain, or a mountain meadow fresh with spring flowers, but what he wanted was not parallel diagonal lines symbolizing rain, but an abstraction of this inner feeling of wetness or of spring.[3] Many other analyses of old masters have been made famous by being reproduced in *Bauhaus* 1919-1928, and we learned a great deal from them about texture, rhythm, space and chiaroscuro. Texture was one of our major subjects of study, for it brought us closer to an understanding of our materials. We made scales of texture from hard to soft, and we drew it—the kind of *trompe-l'oeil* illusionism that the layman values so highly was done only in the early part of the course, and the final test was collage. For collage tested our creativeness, our sense of form, and our feeling for the combination of different textures.

As we worked together, so we played together, and our relaxations were as typical of the time and place as were our studies. At first our extra-curricular activities were quite simple—painting bathing-trunks on nude statues and so forth—but these student pranks were soon abandoned as altogether too conventional. Much more typical was an evening with Itten's students when they read the *Judith and Holofernes* of the Viennese *Biedermeier* master, Nestroy. I remember also Gerhardt Marcks the sculptor reading a story by Heinrich von Kleist, and, on other evenings Gropius would read to us from *Das Gesims* (The Cornice) by an author whose name I forget, though his deep reverence for the profession remains in the mind while the text is forgotten.

4, design for a programme by Peter Röhl, 1921.

Then there were those memorable Saturday evenings when we danced in folk-dance style to the tune of Ludwig Hirschfeld's accordion. Later, at soirées that were open to the public, a pianist named Erdmann played modern music; there was a reading of the epic of Gilgamesh by candle-light, the last candle being snuffed out at the end to leave us in utter darkness with the great death-lament still ringing in our ears. I recall, too, the thrill of hearing the shrill staccato rhythms of Frau Lasker-Schuler reading her own poetry, but who remembers even her name now, after thirty years have passed.

There were more organized dances also, and masked balls on set themes, some of which are mentioned in *Bauhaus* 1919-28. The 'Head-dress' theme produced the most marvellous confections—and Hausenstein's *Barbaren und Klassiker* must have been heavily drawn upon for ideas. At the other extreme was a spontaneous Saturday night performance of *The Dance of Death*, a revived mediaeval mystery play that one of us had seen, which we acted in costumes improvised on the spot.

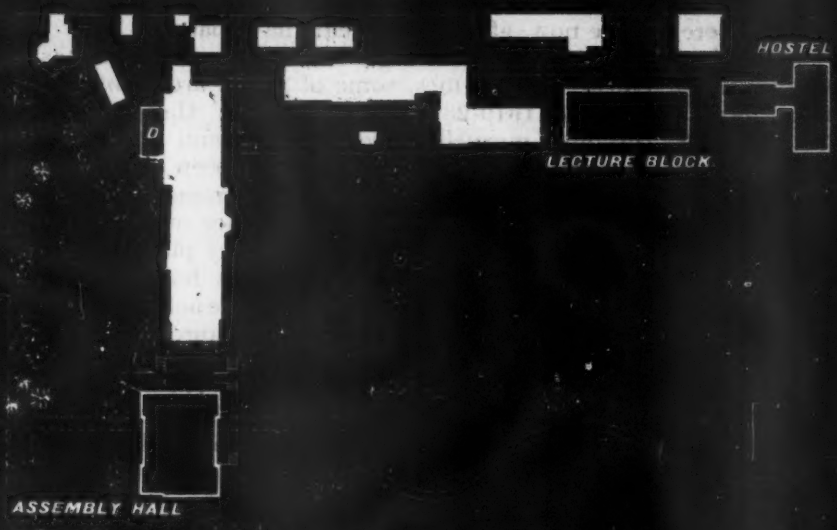
5, Cain and Abel: woodcut by Gerhard Marcks, 1923.

Yet, by the spring of 1922 all this had changed. Itten was soon to resign, and with his going the Expressionist era, of which he was the moving spirit, came to an end. Theo van Doesburg, the propagandist of the Dutch *de Stijl* group had already been living quietly with his charming wife in Weimar for a year. Now he burst upon us with a lecture on his group, while his wife played *de Stijl* music—practically all in octaves as I remember, but with a definite affinity to squares and rectangles. As a champion of geometric purity in architecture, Van Doesburg must have thought us very provincial at first—I can still see his tall black-shirted figure monocling the students' collages with unconcealed horror—but he rallied to our defence when the Bauhaus was attacked in 1924.

De Stijl certainly had some influence on us, but even without van Doesburg's presence in Weimar, abstract Art would have driven out Expressionism. There were abstract elements even in Itten's painting; Klee toyed with abstraction in his own inimitable manner, and Oskar Schlemmer was never anything but abstract. However, asymmetry and the use of the Golden Mean are a very specific kind of abstraction, and these elements were the special contribution of *de Stijl*. The influence may be seen in the typography of the Bauhaus publications, and very soon after that in architecture also, but never as merely slavish imitation.

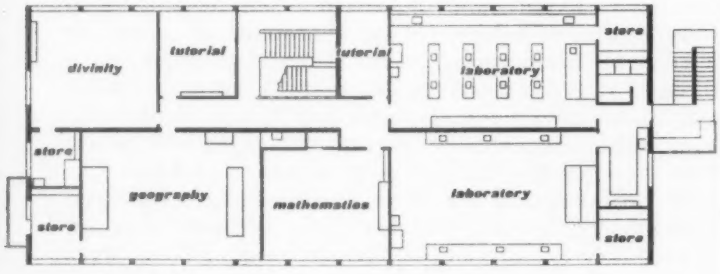
It was something much more profound than that, as appeared when Gropius lectured on *Art and Technics—a new unity;* as appeared when firm contacts were established with industry; when Moholy's lighting fixtures showed that the metal-working shop had freed itself from Expressionism and Primitivism; when Albers and Kandinsky continued and developed Itten's preliminary course. As these changes became effective, the new course of the Bauhaus was set, the course it was to pursue after its transfer to Dessau, and for the rest of its German existence.

[3] 'An artist should identify himself with the landscape and watch it until its significance is revealed to him.'—Shan Shui Hsun, *Comments on Landscapes*, in Kuo Hsi, *An Essay on Landscape Painting*, translated by Shio Sakanishi (London, 1949) Itten may have gained his understanding of Chinese landscape painting from Otto Fischer, *Chinesische Landschafts-Malerei*.

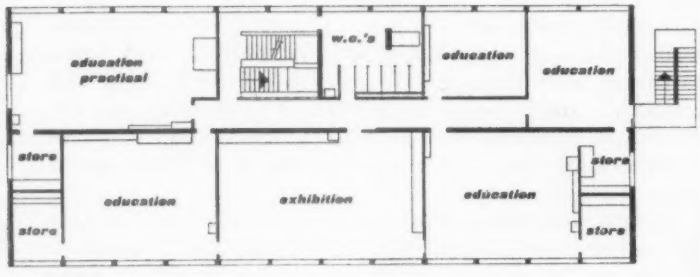


site plan:
buildings shown in white were already existing; those in black are discussed in the following pages, and the hatched building is due to be begun in 1958. D=dining extension.

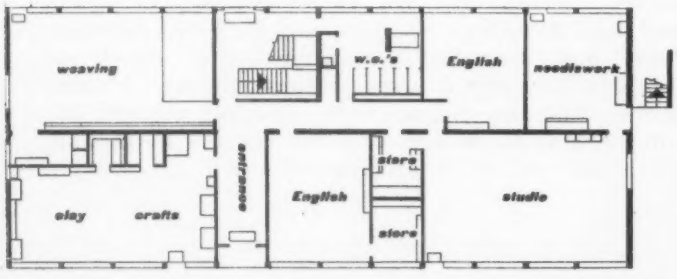
TRAINING COLLEGE AT WIMBLEDON



lecture block : second floor

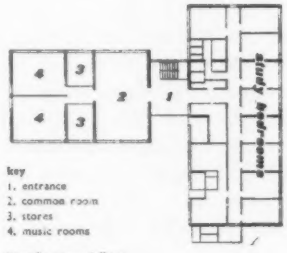


first floor

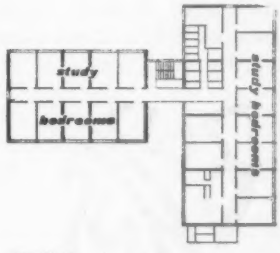


ground floor

scale : 1/32 in. = 1 ft.



hostel : ground floor



upper floor

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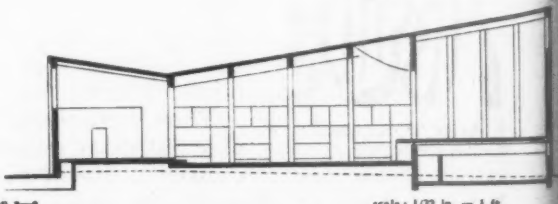
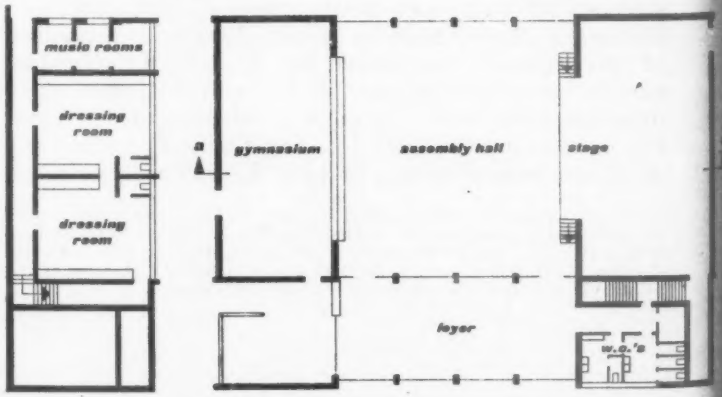


assembly hall : section a—a

scale : 1/32 in. = 1 ft.



lower ground floor

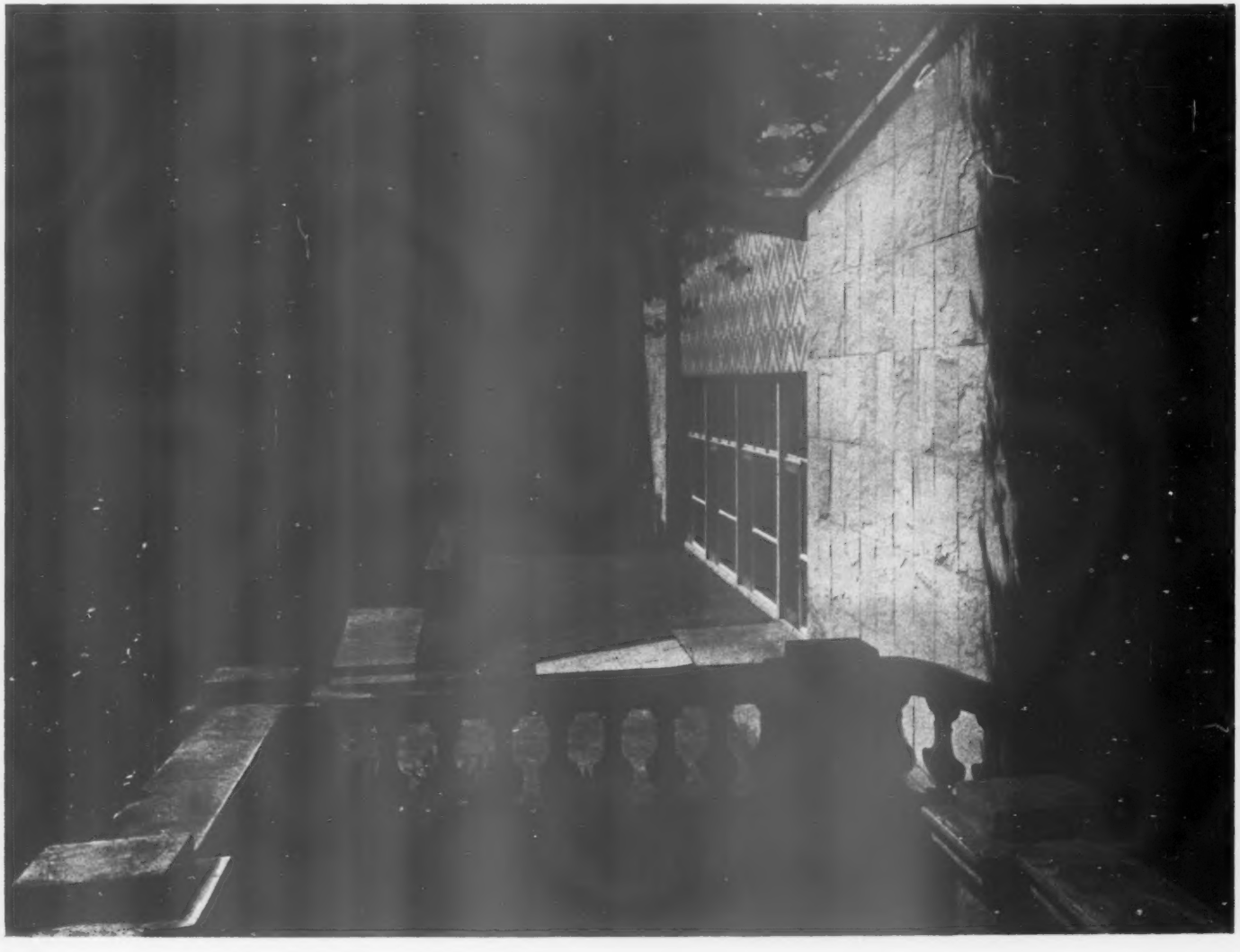
ground floor

TRAINING COLLEGE AT WIMBLEDON

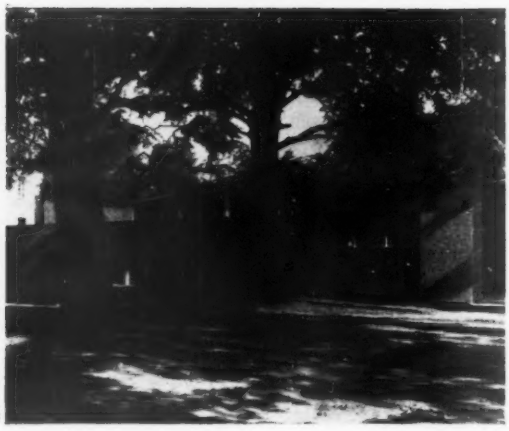
ARCHITECTS	***YORKE, ROSENBERG AND MARDALL***
associate architect	***T. R. Evans***
assistants in charge	***Julian Sofaer and Lloyd A. Smith***

The buildings of Southlands Training College for Women have been erected at different times over the last 100 years and occupy 11 acres east of Wimbledon Common.

In the post-war expansion programme the following buildings were required by the College: a memorial hall, to be used for morning assemblies, dramatic productions, concerts and other college activities; a lecture block, Nissen huts having previously been used as lecture rooms; an extension to the existing dining hall, and



1. looking along the eastern side of the assembly hall from the terrace of Chapman House, one of the older buildings on the site. The structure of this wall is load-bearing brickwork; the facing is of York stone slabs and purpose-made tiles, coloured red-brown and white, designed by Peggy Angus.



2

Facing page: 4. the south wall of the lecture block; the sunbreakers over the windows are galvanized steel painted light grey. The wall tiles in the entrance are brown, white and green, and were designed by Peggy Angus. 5. the south-east corner, showing the end wall which is brick, faced with specially quarried York stone. 6. detail of the York slab facings. 7. east wall, with escape stair, which has a reinforced concrete spine and an expansion joint in the landings, as it is structurally independent of the main block; the greenhouse on the top landing leads into a preparation room serving two laboratories

4 | 5
6 | 7

a hostel to accommodate 50 students in study-bedrooms and to include two staff flats, a common room and music practice rooms.

The new Memorial Hall is sited in the south-west part of the college grounds, where existing stone stairways descend 8 ft. to basement level (containing kitchen and boiler-house) of the existing buildings. From these stairs the site drops a further 7 ft. to the south boundary.

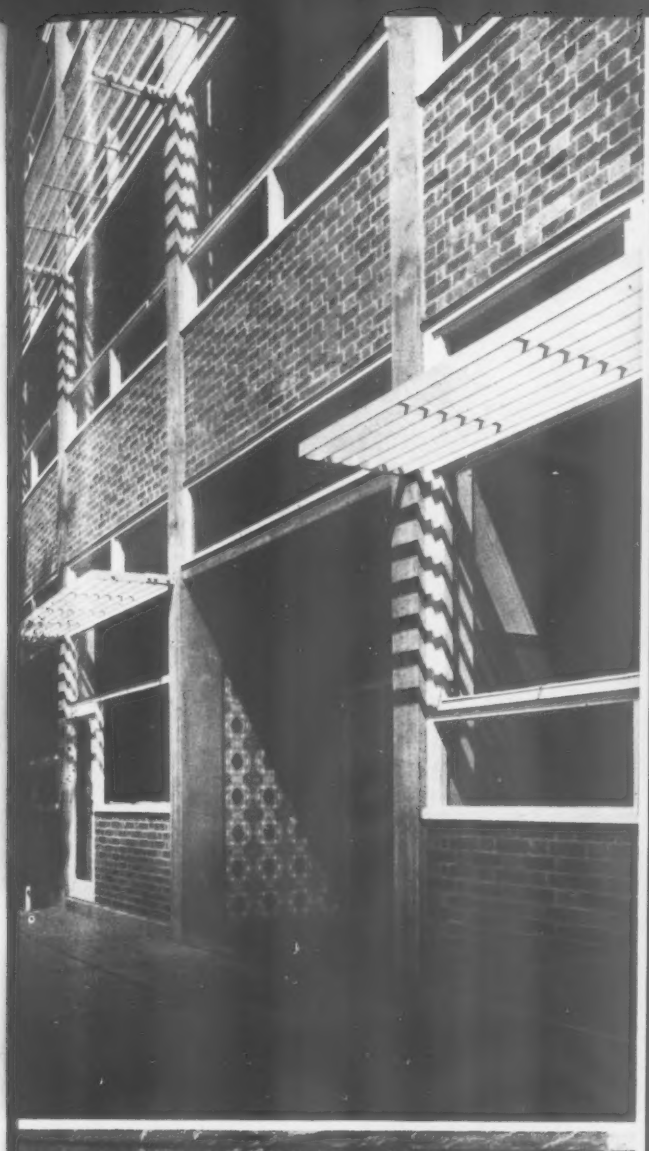
Required were: seating for 300; a fully equipped stage; dressing rooms and music practice rooms; a gymnasium (not fully equipped) which could be combined with the assembly hall to seat 480; and a foyer, cloaks and lavatories. The stage is on the south, the fall in the site enabling the dressing rooms to be accommodated under it. The two-way slope of the roof is due to the maximum roof height being necessary above the stage only, the gymnasium and the rear part of the assembly hall not needing to be so high.

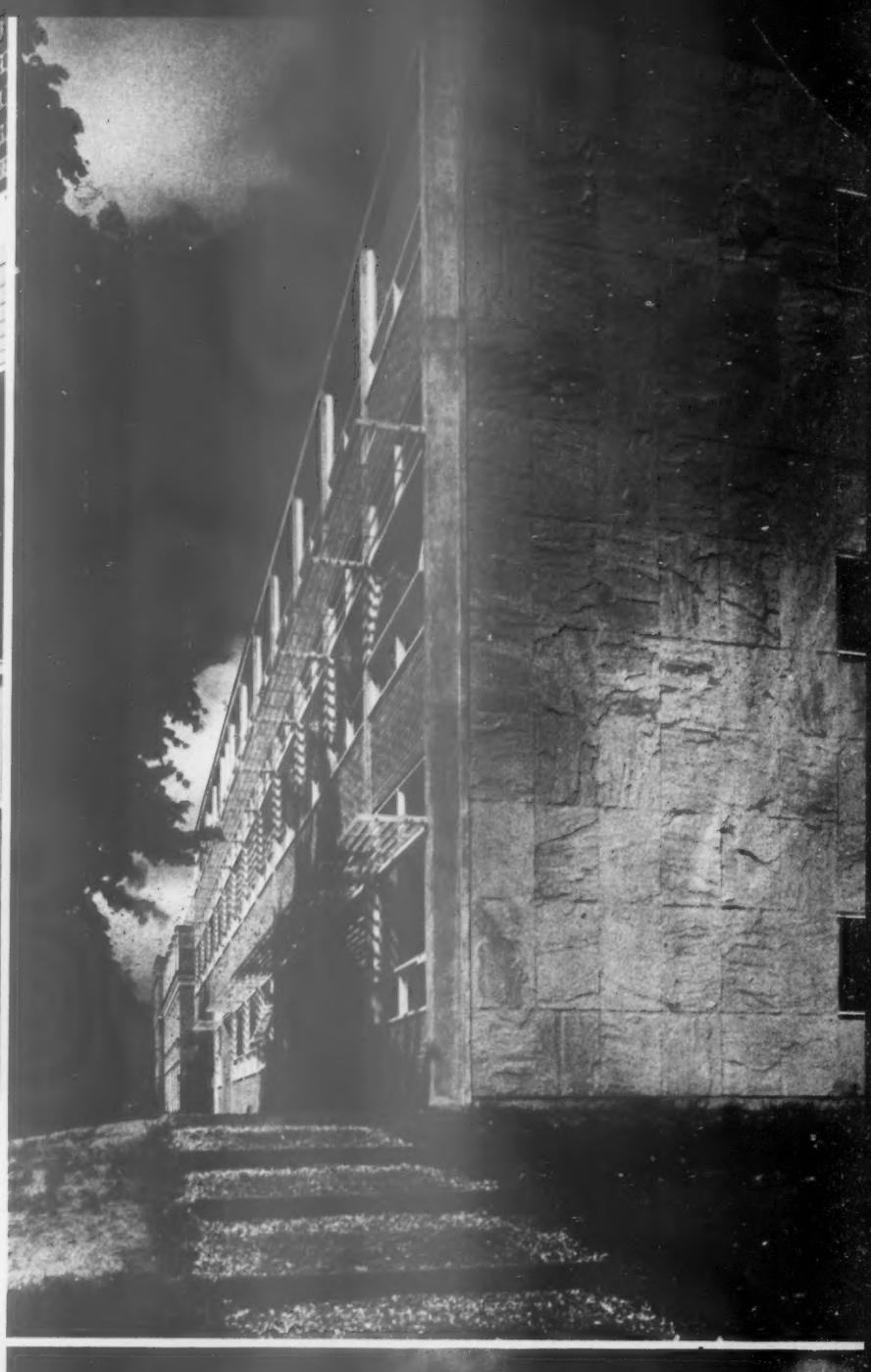
Three reinforced concrete frames span over the assembly hall. The east and west walls of the stage and the proscenium wall are load-bearing brickwork, the south wall being reinforced concrete, framed; the roof beams bear on to the proscenium wall. The gymnasium is similarly constructed. The external facings to the assembly block are York stone slabs, rendered brickwork and purpose-made tiles; on the lower block, fair-faced stocks and rendering.

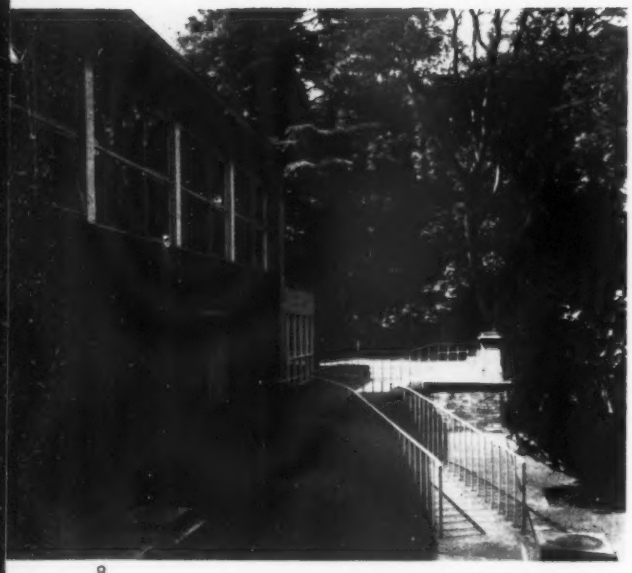
The north of the site was chosen for the lecture block and hostel: here there would be a natural expansion of

2, above, the assembly hall from the west. 3, the north-eastern corner of the assembly hall block.

3







8

8, the north wall of the assembly hall block; the wall has a finish of spatterdash up to the windows, coloured dark brown. 9 and 10, the students' foyer, on the west side of the assembly hall. The plastered panels over the windows to the assembly hall are red.

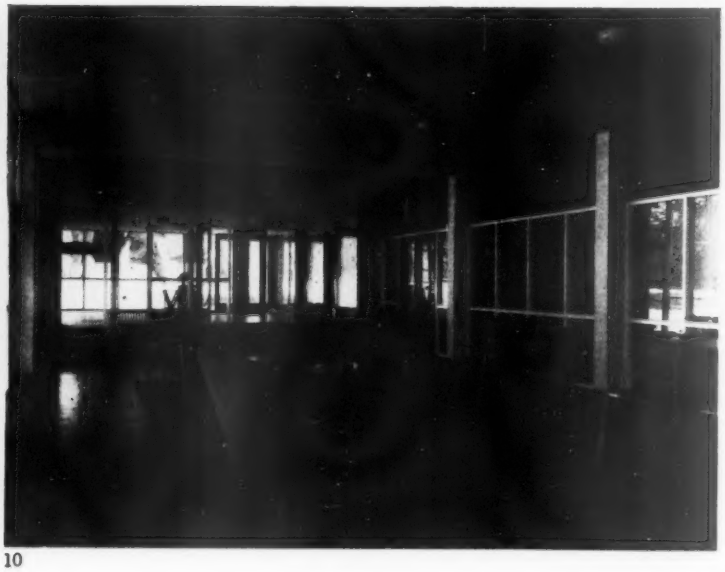
circulation areas, and both blocks could be served by an existing boiler-house. The structure is of reinforced concrete columns and floors, with the beams spanning on to a central spine wall of load-bearing brick-work. The east and west end walls are also load-bearing and are faced with York stone slabs. The external columns are fair-faced concrete and the cavity brickwork panels spanning between are faced with multi-coloured stocks.

Internally the floor finishes are polished oak wood block in the lecture rooms, heather brown quarry tiles in circulation areas, and terrazzo for the treads, risers and landings of the main staircase; window cills, projecting above radiators, are polished asbestos. The suspended ceilings are mainly fibreboard with the remainder plaster on lathing.

The dining hall extension provides additional accommodation for 60 students: it is of cavity wall construction and the facing bricks are Dorking multi-coloured. The internal finishes are oak strip flooring, oak panelling to the end walls and a ceiling of plaster on expanded metal.

The hostel will be of three storeys; it is hoped, subject to Ministry approval, to begin building early in 1958.

9



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1, *Anfiteatro Campano outside Capua, second in size to the Colosseum only, a ruin for centuries, it was already despoiled of most of its sculpted keystones when Clérisseau drew it.*

HEADS IN CAPUA *by S. Lang*

Today's Capua takes its name from Roman Capua which, according to Cicero, was second only to Rome in importance and magnificence. This Roman Capua was destroyed in the ninth century and the present town was subsequently founded near it on another Roman site. The town, now, can lay claim to few advantages; situated in the plain near Naples it cannot boast of any beauty deriving from its natural position nor of any very picturesque views; the plan is of the Roman chequerboard pattern. Were it not for the puzzling remnants of the building activity of Frederick II few people would find their way there. As it is the Hohenstaufen emperor, possibly attracted by the historical associations of Capua, intended not only to create there a centre of learning attracting the great men of his time, but also to adorn it architecturally by creating a Castello with a triumphal arch (begun 1234). All that now remains of this great undertaking is several heads, formerly embedded in the structure and now in the local museum, 2. These are one of the more

2, *'Zeus,' one of the few pieces of sculpture surviving from Frederick II's Triumphal Arch in Capua, possibly influenced by those of the Amphitheatre.*

celebrated problems of art history, because, in spite of their being undoubtedly work of the thirteenth century, they look quite incredibly classical and Roman—an illusion, it must be admitted, which is less likely to be created by the originals than by photographs. However, the traveller arriving by bus and descending opposite the Palazzo del Municipio is greeted by another set of heads no less puzzling and very much less known. There is one

3, 4, 5, 6, *the ancient Roman heads imbedded into the fabric of the Palazzo del Municipio are obviously some of the keystones from the Amphitheatre.*

head inserted as keystone into the rusticated entrance porch of the sixteenth-century palace, 3, and in addition one underneath each ground-floor window. Are these heads of the sixteenth century? The satirical head, 4, could be, but what about the Apollo, 5, or the Mercury, 6? Are they Roman or could they also date from the thirteenth century?

The solution of this puzzle will be found a few miles out of the town. There still stand the considerable remains of a large Roman amphitheatre, 1, second only in size to the Colosseum in Rome; the keystones of two of its ground floor arches are

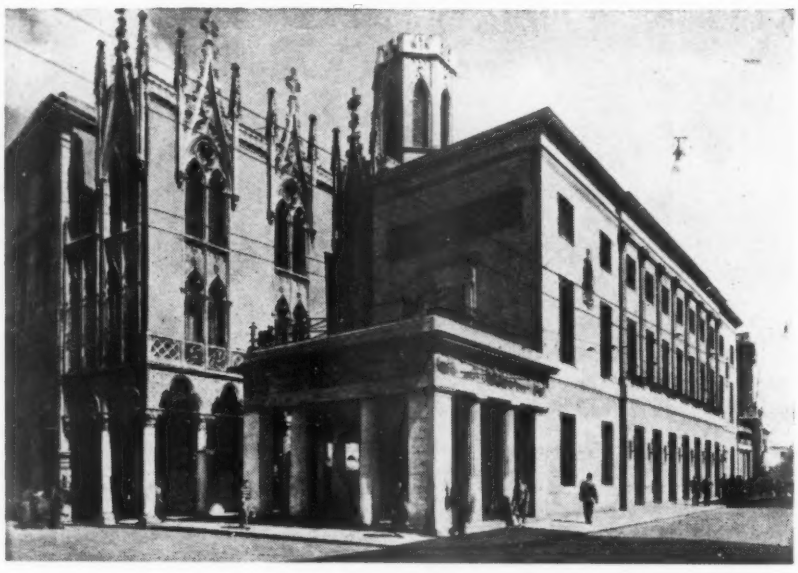
7, a tragic mask—one of the heads from the Municipio, originally perhaps high up on the amphitheatre.

formed by busts of a god and a goddess and these are in character and style exactly like the ones on the Palazzo del Municipio.[1] So the Anfiteatro Campano, built by Hadrian in the first half of the second century, is the source of these puzzling heads. Whether the keystones of all storeys of the amphitheatre were decorated in a like manner is not known, since none of the higher arches has survived; it may well be that heads larger than those *in situ*, as e.g. the Tragic Mask, 7, may have been made for positions more distant from the ground. The sculptural quality of these heads is in one way outstanding, but what may endow them with a quite uncommon historical importance is the possibility of their having formed the Emperor Frederick's inspiration in his sculpture for the *Porta Capuana*.

[1] G. Pesce, *I Rilievi dell' Anfiteatro Campano*, Rome, 1941.

PEDROCCHINO AND SOME ALLIED PROBLEMS

by Nikolaus Pevsner



8, left, the Pedrocchino and, right, Caffè Pedrocchi, Padua, both by Giuseppe Japelli.

'I cannot possibly pass over in silence a structure which was in active progress the last time I was at Padua. This elegant and spacious edifice . . . was executed for the owner of the Pedrocchi coffeehouse who purposed transferring his business thither. It is also intended to serve as an assembly room and casino and will certainly be one of the most magnificent in the world, . . . and unless a person were apprised of the reality, such a building would appear to him much more like a palace or temple than a coffeehouse.' Thus Valéry's *Historical, Literary and Artistical Travels in Italy*, published in 1839.

The Caffé Pedrocchi is indeed one of the noblest buildings of the Greek Revival in Italy, 8, 13, reticent with its few well placed and well spaced accents of low Doric columns, of pilasters and of panels in relief and feigned relief. Its main front faces north, with two symmetrical one-storeyed projections. To the south there is only one of these, and what corresponds to it is a rude awakening from the dream of Doric poise and equanimity, a tall, narrow, bristling piece of Neo-Gothic display, ill-advised in this position and ill-adjusted to its Grecian neighbour which it immediately adjoins. Yet it is the design of the same architect and was put up on the completion of the main building. It is popularly known as the Pedrocchino. Mario Labò several years ago pointed out the little horror to me as the first example of Gothic Revival in Italy, except for garden furnishings and theatrical settings. Last summer I could follow his hint, and now wish briefly to present the story which emerges and which may be of some minor interest to English readers.

Antonio Pedrocchi was over forty when, in 1819, he asked Giuseppe Jappelli, an architect of thirty-three, to take over the unpromising beginnings of a new café started by him on a more ambitious scale than any existing café. A bottega da caffè had been established by Pedrocchi's father as early as 1772, and Stendhal in 1815 called the café then in existence 'le meilleur de l'Italie et presque égale à ceux de Paris.'[1] The building now was to emulate the quality of the establishment. Valéry in his *Travels* says that it was meant to cost £6,000, 'but a Parisian architect would not get through it with £40,000.' He also says that the building was carried on entirely without sub-contractors. 'There are only the architect who gives orders in the morning, and the master who pays at night.'[2] The café was opened in 1831 but not entirely completed until 1842.

Jappelli had studied engineering before he decided to go in for architecture, and he never in later life gave up the former for the latter. From 1800–1803 he read mechanics and hydraulics at the Accademia Clementina in Bologna. In 1803 he moved back to Venice, where he had been born, to join for a period of four years the office of Gianantonio Selva, then the most distinguished architect of Venice.

Selva was born in 1751. He was a pupil of Temanza, the protagonist of anti-Baroque, Palladian principles in Venice. The years 1777–80 he spent in Rome, a friend incidentally of Canova. From Rome he went to France, England and Holland. The experience of the style developed by Piranesi in his etchings and by the scholars of the French Academy in Rome and then of the Boullée-Ledoux circle in Paris made him a Grecian rather than a Romanist. His recent biographer does not do justice to this most interesting aspect of his art. His design of 1813 for a pyramidal monument to Napoleon to be erected on Mont Cenis, 10, is the most direct reflection of the Boullée style anywhere in Italy. It has a Greek Doric portico in front of the pyramid, and Greek Doric also is the portico of the round church of Possagno begun by Selva in 1819 to a joint design of his own and Canova's (who paid for the church).

From Selva Jappelli derived his Doric order at the Caffè Pedrocchi and elsewhere, also probably the Durandesque character of his vast project of 1824 for a new university for Padua, and certainly a horizon wide enough to embrace France and England. The English example was indeed paramount in Jappelli's first designs of importance, designs not for buildings but for 'English gardens.' The first of these near Cremona dates from 1814, the most famous is that of the Villa Cittadella-Vigodarzere at Saonara near Padua begun in 1817. They were not the earliest, but they were early examples of landscaping in Italy. Ippolito Pindemonte in a paper of 1792 to the Accademia di Scienze, Lettere ed Arti at Padua had spoken of *giardini inglesi* and mentioned two as existing in Italy, one at Caserta, the other near Genoa, laid out for Senator Lomellini, former Genoese minister in Paris. Long before then, the Padre Lodoli, that socratic character who talked much to his Venetian friends on function and reason in architecture and design and who died in 1761 had liked in gardens the manner 'che a' tempi suoi fu particolarmente introdotto dagl' inglesi e con arte nascosta incita più la bella natura.'[3]

The Lomellini garden seems to have been the first example of landscape gardening in Italy. Mario Labò has kindly identified it for me. It is at Pegli and now called Rostan Reggio. It was laid out *c.* 1760 by the architect Andrea Tagliafiche and had a formal and a picturesque part, the latter with a grotto (Bath of Diana), winding paths, a hermit's cell and a sham Roman ruin.[4] The English garden at Caserta was the work of a German, Graefer, who came to Italy from England where he had been 'publicly celebrated . . . for the Invention of prepared Vegetables.' He was introduced to the King of Naples by Sir Joseph Banks.[5] Pindemonte's paper of 1792 was followed at once by other papers and books (a paper of 1796 by L. Mabil, a book of 1801 by Count Ercole Silva, a translation of 1801 of Hirschfeld's *Theory of Gardening*).[6]

So the ground was prepared for

[1] *Journal d'Italie*, ed. P. Arbelet, p.337.

[2] *Ib.*, p.214.

[3] *Elementi dell' Architettura Lodoliana* (by A. Memmo), Rome, 1786, vol. I, p. 60.

[4] *See* Pescetto: *Guida igienica ai bagni di mare*, Genoa, 1862, p. 256, etc.

[5] *See* John Graefer: *A Descriptive Catalogue of Herbacious or Perennial Plants*, London, 1789; also L. Dami: *Il Giardino Italiano*, 1924, and G. Chierici: *La Reggia di Caserta*, Rome, 1937.

[6] For all these *see* Arturo Graf: *L'Anglomania*, etc., Turin, 1910. Roberto Carta Mantiglia calls the first English garden in Italy that of Count Silva at Cinicello near Milan. Selva's Villa Manfrin at S. Artemio near Treviso also had an English garden.

Jappelli, and he became the most successful of purveyors of English gardens from about 1815 to his death in 1852.

Of special interest in connection with the Pedrocchino is one of the garden furnishings of Saonara, the Chapel of the Templars, 14, a gimcrack piece of romantic Gothicism, belated progeny of Walpole's Chapel in the Wood at Strawberry Hill. I am not certain how novel the use of Gothic forms for such pavilions was in Italy. Since for instance the gardens of the villa of Senator Angelo Querini at Altichiero near Padua, published by Giustina Wynne, Countess of Rosenberg in 1787, though not picturequely laid out, had a *boschetto di Young*, a Chinese pavilion, and an Egyptian Canope,[7] similar toys in the Gothic taste can safely be assumed.

Other early instances of designing *alla gotica* are a church drawn as a *capriccio* by Juvara and referred to by Professor Wittkower 7[a] and two plates in Vittone's *Istruzioni Diverse dell' Architettura Civile* of 1766. However, the latter were 'ideate per la celebre cattedrale di Milano' and thus point backward to the Gothicism 'by conformity' of the sixteenth and seventeenth century projects for S. Petronio in Bologna rather than forward towards the Romantic Gothic Revival.

Gothic forms of an equally fantastical kind had also occurred here and there in eighteenth century stage design, though apparently not often.[8] They may well have been Jappelli's inspiration in his effort at Saonara.

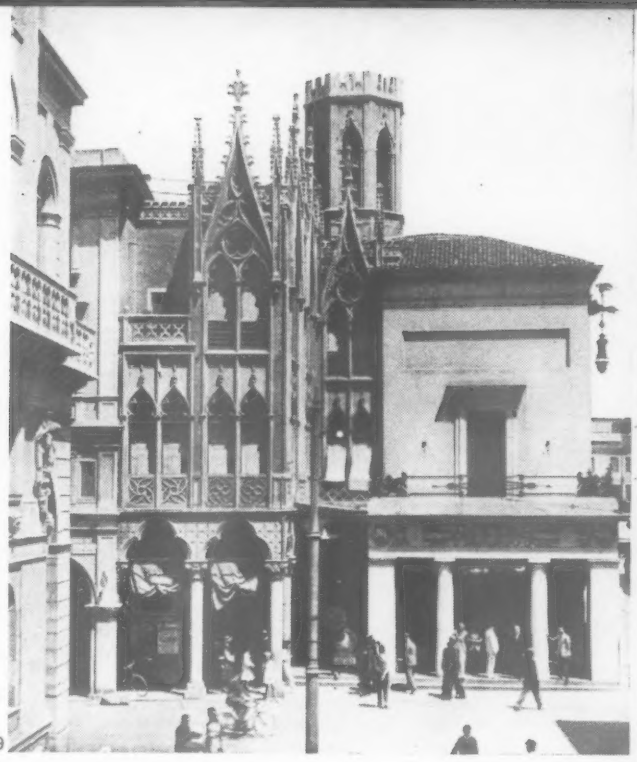
But they don't explain adequately the design of the Pedrocchino. This baffling appendix was designed considerably later than the Doric building. It was completed in 1837, and there is reason to assume that it was designed only in 1836. For in that year Jappelli had visited both France and England. I suggest that the Pedrocchino is the outcome of this journey. The forms are indeed half-Northern and half-Italian. North Italian in general is the curious polygonal tower (cf. S. Antonio, Piacenza, etc.), and specifically Venetian (cf. 11) the fenestration, and the balcony railings. Northern are the arcade arches on the ground floor with the diaper of the spandrels (cf. e.g. the chapter house of Westminster Abbey, 12) and also the tracery and the gables of the upper windows. Beyond individual motifs Jappelli's decision to build Gothic may well have been influenced by the large number of Neo-Gothic and original Gothic buildings he could see in London. In Paris in 1837 there were virtually none.

Jappelli's main interest in London

[7] On this see N. Pevsner and S. Lang: in THE ARCHITECTURAL REVIEW, vol. CXIX, 1955, pp. 243, etc.

[7a] *Bolletino della Società Piemontese d'archeologia e di belle arti*, vol. 3, 1949, (published Turin 1951.)

[8] *See* C. Ricci: *La Scenografia Italiana*, Milan, 1930, especially plate 43, after Francesco Galli Bibiena, 1739.



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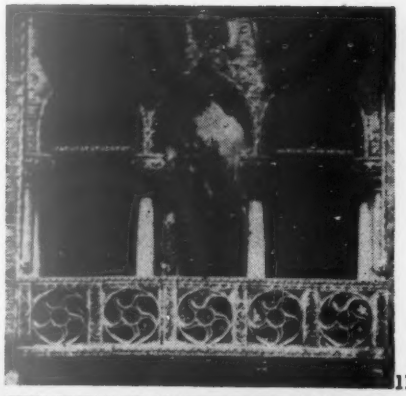

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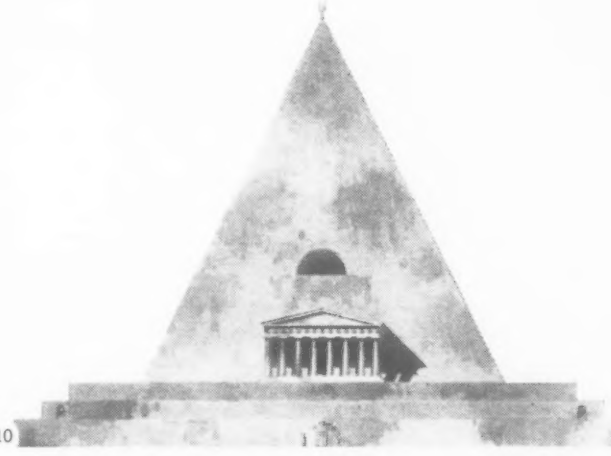

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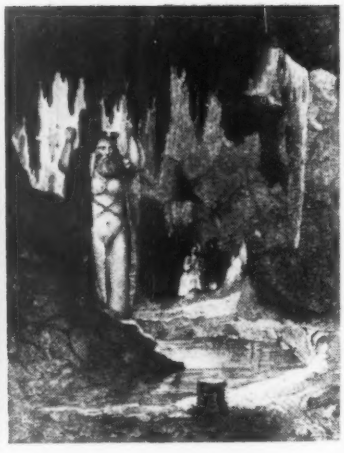
Jappelli's Pedrocchino of 1836-7 is the earliest major example of Neo-Gothic architecture in Italy. It stands oddly next to and connected with the same architect's Caffè Pedrocchi, 9. The Grecian style of this, 13, derives from that of Jappelli's master Selva (whose proposed monument to Napoleon to be erected on Mont Cenis is illustrated in 10) but the details of the Pedrocchino are an unexpected blend of Venetian motifs (see the balcony of the Palazzo Contarini Fasan, 11) and English motifs (arcading from the Chapter House, Westminster Abbey, 12). Jappelli had visited England in 1836.

13

14



15

The Chapel of the Templars, 14, *and the Grotto di Saonara*, 15, *where Jappelli started work on the gardens in* 1817. *The English inspiration is evident.*

had, however, not been architectural. He was an engineer by training, had after his training under Selva joined the Regio Corpo di Strade ed Acque and never ceased to be consulted on matters of engineering. The only surviving letter which deals with his journey reports of introductions to Rennie and Brunel, of their presenting him to the Institute of Civil Engineers and its president James Walker, to the offices of such firms as Parkins, Maundsley, Cotton and Joel Spiller, and of orders for machines.[9] Amongst his papers preserved at the Museo Civico at Padua are a memorandum on English patent law, notes on the English systems of parish apprenticeship, on the slave conditions of workmen in English factories (quoted from Greg and Shaftesbury), on Davy's safety lamp, and on gutta percha.[10] Moreover in 1850 Jappelli was consulted on a reorganization of the planning for shipping and railways at Venice, and he proposed a scheme for docks with a suspension bridge and warehouses clearly imitated from those of the docks of London. Jappelli indeed in his memorandum called the St. Katherine's Dock 'un vero modello di tal' genere di costrutture.'[11]

It is worth remembering in this connection that Schinkel, the greatest European architect of Jappelli's generation (he was born in 1781, two years before Jappelli). when he went to England eleven years before Jappelli, that is in 1826, also took the closest interest in English commercial architecture and technological achievement.[12] He too for instance visited Maundsley's workshops. But when he, like Jappelli, turned to Neo-Gothicism after his visit to England, he favoured Tudor forms (e.g. at Babelsberg Palace and in the proposed church for the Oranienburger Vorstadt), whereas Jappelli did not. This absence of specific English details in the Pedrocchino must be emphasized, because it contradicts the most important contemporary statement in print on Jappelli's ideas in imposing on his Pedrocchi the strident contrast of the Pedrocchino.

Pietro Selvatico (1803–80) was a pupil of Jappelli. One of his best-known works is the Gothic fa ade of the church of St. Mark's at Trento (1848). He is also reported to have built the mausoleum of the Pisani Family at Vescovana in the Elizabethan style. On the Pedrocchino he writes in his *Guida di Padova* of 1842 [p. 262] 'Close (to the Caffè) and as a part of this precious edifice rises another building which Signor Pedrocchi had destined to be an *ostelleria* and a reading room. This also originated in the mind of our Jappelli. The site was irregular and narrow. How could one thus adapt to it with good effect the gracious lines of Greek and Roman architecture? Any thought of order, of symmetry, of conventionally handed down rules was made useless by this Procrustean bed. What was needed was capricious architecture, something fantastical that would fit any corner of space and cut a handsome figure on any site. The acute mind of Jappelli realized that only a medieval design would work, and he saw also that an erect and intricate style would by comparison admirably suit to bring out more grandiosely the masses of the main building to which he had dedicated all his care. Anyone who understands the arts will notice that this ornate building is an expedient, but few expedients have ever been as ingenious and as light as this. Amongst all the varieties of the system of building with pointed arches he found most fitting to his particular case that practised in England at the time of Queen Elizabeth. So his inspiration was taken from the bold piles of Cambridge and Windsor whose elegant effects he reproduced without servile imitation.'

[9] Man. Antichi 750.

[10] On this *see* N. Pevsner: *High Victorian Design*, London, 1951, p. 40.

[11] Padua, Mus. Civ. C.M. 481, especially No. 23.

[12] *See* L. Ettlinger, in THE ARCHITECTURAL REVIEW, vol. 97, 1945.

CHILDREN'S PRISONS IN ROME

by Georgina Masson

The building activities of the Popes of the seventeenth and eighteenth centuries are frequently regarded as being limited to the erection of churches, and the magnificent palaces and villas for the Cardinal or Princely 'Nipoti' who would subsequently inherit the vast accumulation of wealth, which was one of the less praiseworthy aspects of the exercise of papal power at that period.

While recognizing to the full the splendour of these more familiar and spectacular aspects of papal architecture, the student of some of the more utilitarian buildings, such as hospitals, prisons, granaries, port and defence works, commissioned by the papal department of Public Works will discover much that is interesting, and sometimes surprising.

Even a superficial study reveals the fact that Rome of the seventeenth and eighteenth centuries was surprisingly advanced in some of its social institutions. There was, for instance, the Lying-In Hospital of San Rocco, which was subject to no civil jurisdiction, and which asked for no name or identification from those of its patients which entered the part known as the 'Cellata' where they could even remain masked if they so wished. Nevertheless the erection of the Carcere Nuove in 1655 by Antonio del Grande for Pope Innocent X must have called forth plenty of 'Coals in the Bath' comment from authorities accustomed to the medieval horrors of the Tor di Nona; and as late as 1845 authorities on prison systems were still referring to the prison as the most 'Solid and salubrious' in Europe.

There is a certain austere dignity about the façade of the Carcere Nuove which gives on to the Via Giulia. It is built of brick, with stone facings, is four stories high, and appears to have undergone little alteration since the seventeenth century, 17. The prison occupies an entire block between the Via Giulia and the Tiber; which resembles a truncated isosceles triangle in shape with the narrow truncated end facing towards the river. The solid mass of the south-western wall is broken by a courtyard of the traditional Italian type, with a fountain, which looks somewhat frivolous in its severe surroundings. On this side, and on that facing the river, something of the original grimness has disappeared with the substitution of larger windows for those of the original cells. The prison is now used as offices for a department of the Ministry of Grace and Justice.

17

17, *the Carcere Nuove from the Via Giulia. It was built in* 1655 *by Antonio del Grande.*

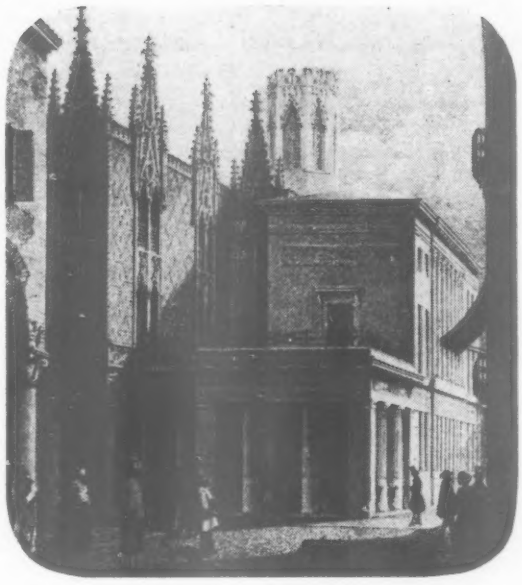
Even more revolutionary in design, and in fact the first prison to be built introducing the modern concept of the segregation of the young offender, is that of San Michele at the Porta Portese, 18; which was designed by Carlo Fontana for Pope Clement XI in 1703. This original building, which has remained

Without servile imitation indeed. Nothing of Cambridge and Windsor has crept into the design of the Pedrocchino, let alone anything of the Elizabethan style.[13] But the inspiration to build Gothic at all may well have come from Jappelli's English visit and even more probably that to build picturesquely and with a bold contrast of opposed styles.[14]

The Gothic Revival never became popular in Italy. It could not; for it is as English as it is un-Italian. So the Neo-Gothic buildings of Italy which one remembers are no more than façades to genuine Gothic churches: to S. Croce in Florence (1857–63) and to the cathedral of Florence (1875–87). The Pedrocchino deserves a place of honour in this small and undistinguished band.

[13] Although Roberto Carta Mantiglia still calls the Pedrocchino 'cambridgeiano'; *l.c.* p. 541.

[14] The upper storey at the back of the Caffè incidentally also contained an Arab and an Egyptian Room (*see* Selvatico, *l.c.*, p. 262). The latter may be noted as a postscript to the paper by Dr. Lang and myself in THE ARCHITECTURAL REVIEW.



16, *Pedrocchino and Caffè Pedrocchi shortly after they were built.*

literature

Jappelli:

C. Cimegotto, O. Ronchi and G. Fiocco: Special centenary volume on the Caffè Pedrocchi, privately printed 1931.

N. Galimberti in *Bollettino del Museo Civico di Padova*, vol. 24, 1931.

G. Damerini in *Rivista di Venezia*, Oct.-Nov., 1933.

B. Brunelli on Jappelli's gardens in *Le Tre Venezie*, vol. 9, 1933.

C. Cimegotto in *Padova*, No. 9, 1938.

Finally, a paper with ample illustrations appeared after I had completed my research: it is by Roberto Carta Mantiglia and was published in *L'Architettura*, Nov.-Dec., 1955.

Selva:

E. Bassi, Padua, 1936.

18

19

18, *the prison of San Michele at the Porta Portese, designed by Carlo Fontana in* 1703.

19, *another prison, adjoining San Michele, built by Ferdinando Fuga in* 1735.

practically intact, consists of a large rectangular hall, whose two lateral walls are flanked by a triple row of cells (64 in all), built one above the other and opening off galleries which could be watched by a single guard seated at one end of the hall. The hall itself is lit by two large windows, under one of these was an altar; but the main body of the room was used as a workshop in which the young prisoners were taught to spin and weave wool. Beneath this central hall were more workrooms and places for storing the wool; while on the roof there was a large space designed for drying the cloth and clothes.

In 1735, following the orders of Pope Clement XII; Ferdinando Fuga built another prison, 19, adjoining that of Fontana. This was intended to be a house of correction for women. It was built at right angles to the prison for children but, in order to preserve the architectural unity of the whole, Fuga continued to build in the same style as Fontana, and the interior arrangement of the two prisons is also very similar.

Later in the eighteenth century the young offenders were removed to the Carcere Nuove in the Via Giulia, and were subsequently moved several times. By the middle of the nineteenth century Rome was no longer the socially progressive city it had been one and two centuries before; and at the time of the Risorgimento the prison at Porta Portese was being used for the solitary confinement of political opponents of the Papal regime. Today it has reverted to its original role, and Fontana's and Fuga's buildings house what are now the most modern institutions of their kind in Italy, run on the lines of a Borstal, and an Approved School.

LAZZARETTO AT ANCONA

by Georgina Masson

'Per il detto Pontefice (Clement XII) feci la gran fabbrica del Lazzaretto a Porto di Ancona,' wrote Luigi Vanvitelli in an autographed list of his own works made in his old age. The first stone of the Lazzaretto, or quarantine hospital for the Port of Ancona, was laid in 1737 with a religious ceremony, a manuscript copy of which is still preserved in the library of the Corsini Palace in Rome. The building is said to have cost half a million scudi, and may have been finished in 1738 when Vanvitelli made an engraving of the Port of Ancona, with detailed drawings of all his work there; the mole, the lighthouse, and the Arco Clementino; but he himself describes his work as having been carried on by his pupil Carlo Marchionni, and this probably included the Lazzaretto.

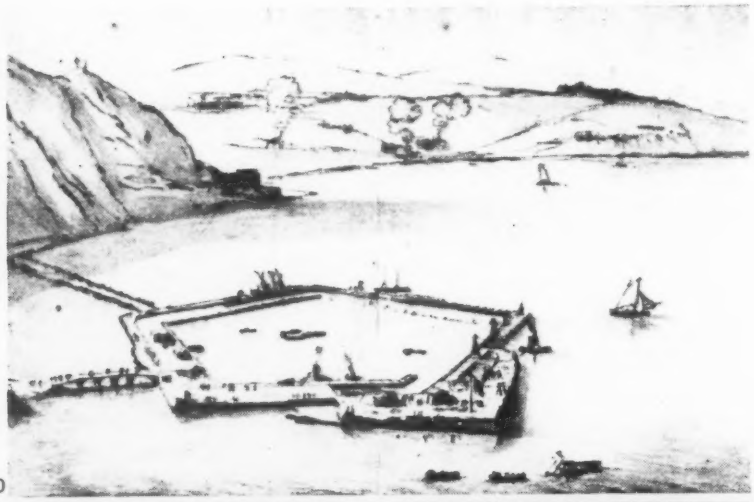
Vanvitelli was commissioned to undertake this work in the Port of Ancona (then part of the Papal States) by the Corsini Pope; after he had failed to win, but been judged one of the most promising runners-up, in the competition for the rebuilding of the façade of the Basilica of St. John Lateran in Rome.

Ancona is a port which has always served Italy in her trade with her oriental neighbours of the Balkans and the eastern end of the Mediterranean; and its history bears witness to the terrible epidemics which have scourged the port at different periods. In order to profit from past experience, Vanvitelli studied the Lazzarettos of Leghorn, Genoa, and Venice, before beginning the plans for his own building. As a result of his observations there emerged the austere pentagonal building, with its curtain wall and double battery, reminiscent of a fortress; which was originally surrounded on all sides by the sea and at some little distance from the nearest shore, 20.

There is a curious resemblance between the hollow pentagon of the Ancona Lazzaretto, 21, and the basic plan of the Farnese Villa at Caprarola. The central courtyard of the Lazzaretto preserves the external pentagonal outline; but the transition from pentagon to circle, which is so notable in the Farnese Villa, is repeated by Vanvitelli in the steps and dome of the charming little chapel, dedicated to San Rocco, the patron saint of travellers, which dominates the courtyard of the Lazzaretto, 22. This chapel, built in imitation of a Roman shrine, is open on all sides so that the inmates of the quarantine cells and dormitory wards could witness the celebration of the Mass from their windows, without leaving their places of segregation. The grace of this little building is remarkable, and it is brought sharply into relief by the massive bulk of the Lazzaretto itself. Vanvitelli recaptured some of its charm in the façade of the cavalry barracks at Maddalena near Naples; but it is more closely related to the Arco Clementino at Ancona, and the designs for the façade of St. John Lateran, than any other of his works.

The chapel is raised above the level of the courtyard by three steps; and both this platform and the floor of the chapel itself, are pierced by a series of manholes; which according to local tradition form a species of water 'oubliette,' in direct communication with a subterrancan sea channel. They are said to have been used, in order to prevent the spread of infection, for the direct sea-burial of persons suspected or known to have died from contagious diseases. It is probable that the tradition has its foundation in fact, as any other use for these manholes, in what must have been a consecrated place, would be difficult to explain.

The Lazzaretto suffered a certain amount of war damage from bombing. The main entrance, 23, with its laurel garland and its trophy supported by dolphins, was a casualty; but it is to be rebuilt from the remaining fragments; and it is the peacetime uses to which the building has been put that have wrought far greater havoc. First as a sugar factory, whose unsightly factory chimneys were fortunately destroyed by a bomb, and now as a warehouse for tobacco; which is a carefully guarded state monopoly and therefore effectively denies access to the building by the general public. Each type of commercial occupation has left behind its quota of hideous brick sheds and other excrescences, that mar the sober and satisfying lines of a building which is probably unique in its design and construction in the world today. Perhaps when normal relations have been restored between Italy and her Balkan neighbours, and the port of Ancona flourishes again, the Lazzaretto could be put to some use, such as a hotel and entertainment centre, for which it could be eminently well adapted.



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23

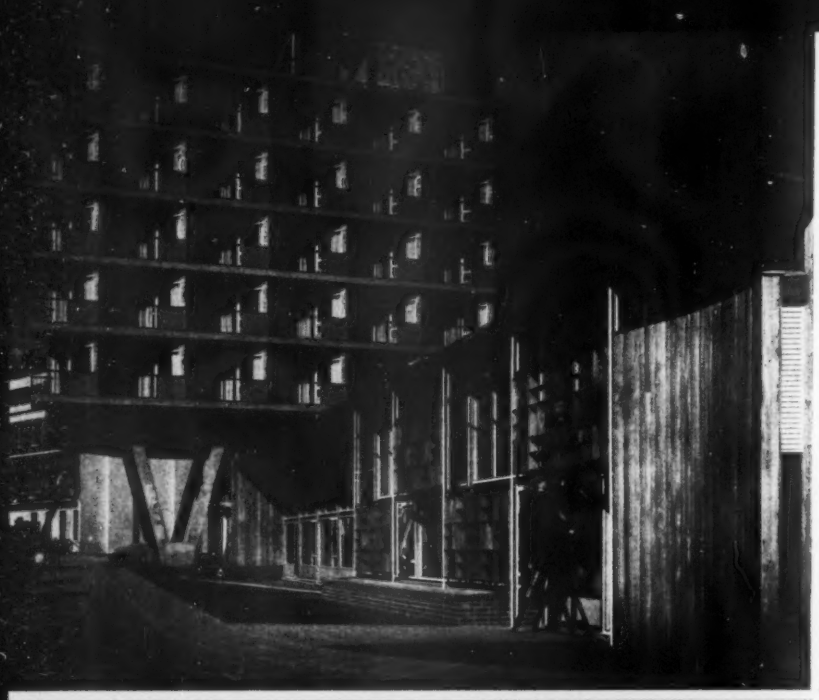
20, the foundations of Vanvitelli's Lazzaretto at Ancona, sketched in 1734, four years before it was completed. 21, the Lazzaretto as it is today, no longer surrounded by the sea. 22, the chapel in the courtyard, dedicated to San Rocco. 23, the main gateway, destroyed by bombing in the last war, but to be rebuilt from surviving fragments.

COACH HOTEL AT DOVER

ARCHITECT	***LOUIS ERDI***
assistant-in-charge	***Alan Fairbrass***

1. the bedroom point block from the south-east: the echelon treatment of the east wall is designed to give each room a private balcony and a good view of Dover Castle. The bronze letters have yellow glass in front and white behind, to cast a glow on to the wall at night.

1



2

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4

The conception of a hotel to cater exclusively for motor-coach traffic—this is the first to be built in the country—was due to a hotel owner, Mr. Graham Lyon, who is, with Watney's, the joint owner of the hotel. The idea arose from the discouragement given by most hotels to motor coach parties. Furthermore coach traffic bound for the Continent via Dover, had increased from about 500 five years ago to 2,600 last year. It was necessary that the rooms in this hotel should be lettable at a very reasonable price; this criterion does not usually apply to this extent in conventional hotel business.

The site was formerly occupied by two terraces of houses stretching between the eastern and western docks; these terraces were demolished, following severe bomb-damage, and the new A2 road is to cross the site. Three-quarters of the area between this road and the sea are to be devoted to council flats; the remaining quarter is occupied by the hotel.

The bedroom block is of reinforced concrete construction raised above the single-storey block of public rooms on four V-columns, which are on pile foundations sunk to a depth of about 50 ft. The site had once been used as a tip for highly sulphurous clinker and slag, which made it necessary for the piles to be encased in brick waterproof chambers. The infill in the point-block is 6-in. light concrete blocks, faced with shingle on battens. The single-storey block is of timber construction, with brick as infill and between the public rooms and services, as a sound insulator. Finishes, beside fair-faced brickwork, are glass, shingle and vertical boarding.

Amongst the floor covering materials are Italian marble tiles, terrazzo, and thermoplastic tiles. The lounges and bedrooms have fitted carpets. The ballroom has a sprung strip floor, the dining-room parquet with aluminium backing on account of floor heating. The staircases have timber treads plugged into a reinforced concrete structure, with fitted carpet. The partitions between bedrooms consist of hardwood studding, sound insulated by a loose glass-wool blanket between, with plasterboard externally, with a total thickness of 3 in. Windows pivot at the top, and slide down as far as the centre of the window space when fully opened. They are timber framed and close tighter under wind pressure. Where possible, internally, constructional materials have been left exposed; however, timber panelling and wallpaper have been used in some focal positions.

The plumbing was prefabricated in floor heights. Bedroom heating is by specially designed convector heaters; in the public areas on the ground floor electric wires in tubes are embedded in the concrete floors, and the ballroom has a plenum system, which ventilates and also heats and cools according to the temperature. All the systems are thermostastically controlled, and can be switched on or off from a central control panel in the manager's office.

COACH HOTEL AT DOVER

2. from the east, looking along Camden Crescent. The mahogany grilles in front of the ballroom windows are sun breakers, on tubular framing.
3. the entrance: the soffit of the overhang is plaster on metal and clay lathing. 4. the saloon bar. A pinewood grille is suspended below the butterfly ceiling; the panel on the end wall is mahogany. Wallpaper colours are: end wall, bluish grey; above the bar, red.

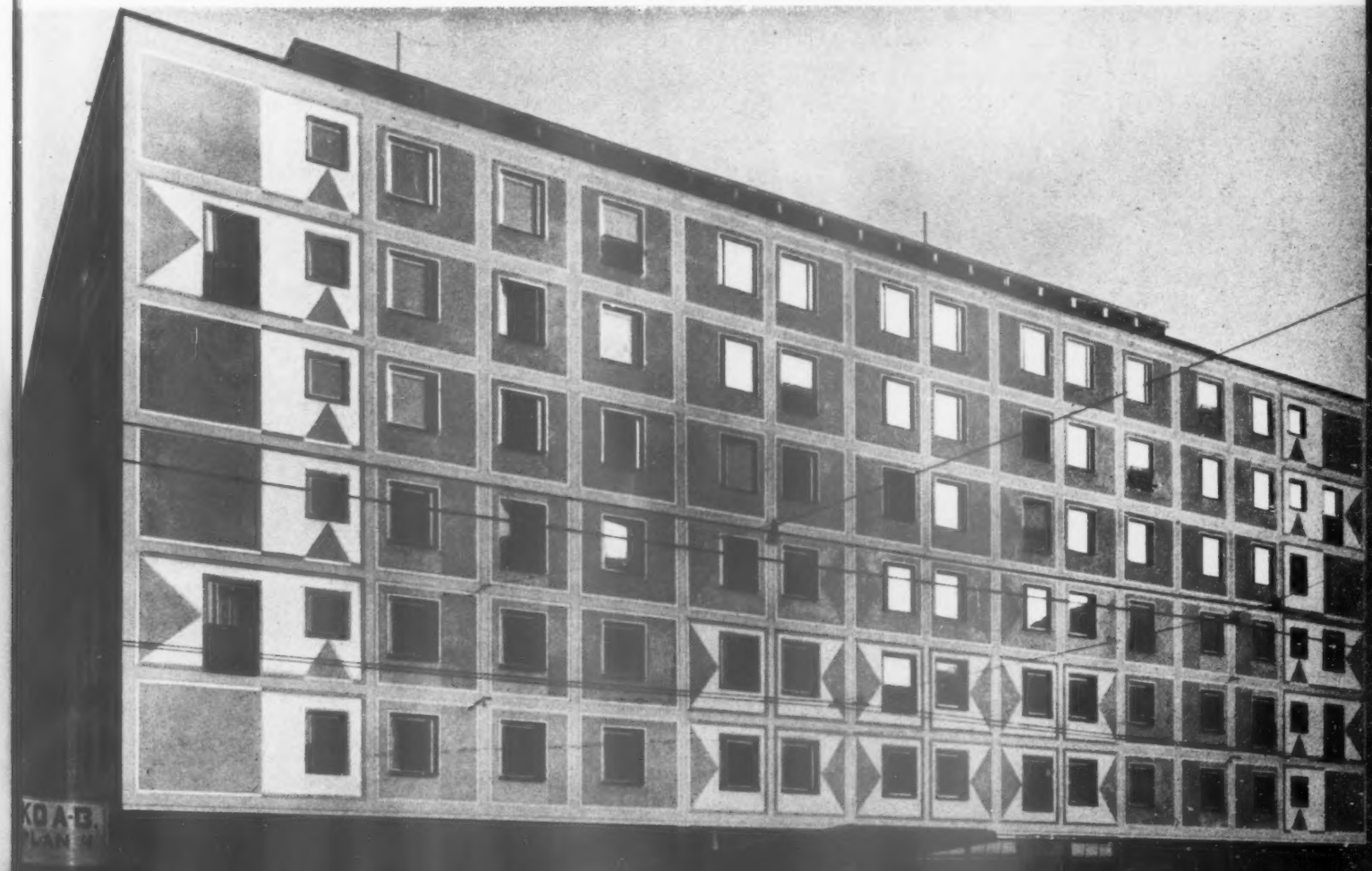
HOTEL IN STOCKHOLM

ARCHITECT | **GEORG VARHELYI**

The hotel is in Götgatan, a street in the district of Södermalm, Stockholm. It has eleven and a half storeys of which three and a half are underground, the first basement housing rooms and halls for private functions, the sub-basements stores, staff changing-rooms, central radio and clock equipment and the air conditioning, and the lowest sub-basement the heating plant. The 288 rooms* are on six floors ; of these 158 have an ordinary bed and a reversible sofa, and may thus serve one or two people ; all rooms have a dual-purpose writing desk cum dressing-

1, the street front of the hotel, which is faced with light concrete panels, rendered in warm and cold greys and white. The footings are black granite.

* About the same size as the Westbury Hotel, Bond Street, London.



2. writing desk and suspended showcase in one of the lobbies. 3. sitting-room in a two-room apartment, with a sofa which is convertible into a bed. 4. In many bedrooms the endwall is painted a dark colour, and the carpet stripes placed across the shorter dimension of the room, to make the room seem wider and shorter than it is. 5. textile decoration in the breakfast room, of a cock and a hen, by Marianne Richter. 6. decoration in the grand gallery by Olle Gill. The background is blue.

table. Much of the furniture is attached to the walls, thus saving labour in cleaning.

Construction is of reinforced concrete slabs; the external wall panels are insulating lightweight concrete, colour-rendered. Non-load-bearing internal partitions consist of wood-wool acoustic board in three layers. The kitchen roof is of reinforced concrete, with a single span of 65 ft., and glass bricks. Labour-saving devices in the kitchen department include electrically driven service trolleys on which loads of 275 lb. can be conveyed into the dining room; door-openers between the restaurant and kitchen department operated by photo-cells, and stools for the kitchen staff which can be clamped to the work tables. The bedroom floors have shoe-cleaning machines. Of the ten lifts three carry passengers, and a collective operation system automatically brings the most convenient lift to the caller. Twenty-four air-conditioning plants deliver 3,500,000 cubic feet of air per hour; the heating plant consists of three oil-fired boilers.

Chief consulting architect was Sven Wallander; Carl-Axel Acking was responsible for the interior design.

2

HOTEL IN STOCKHOLM

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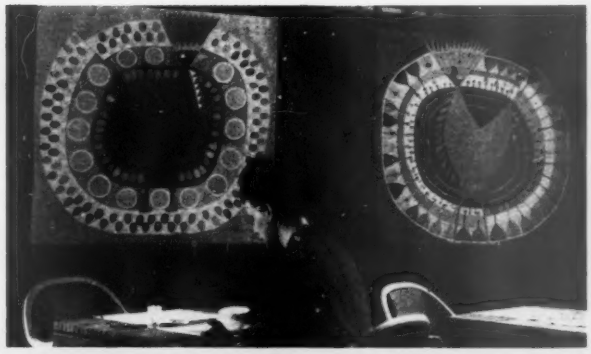

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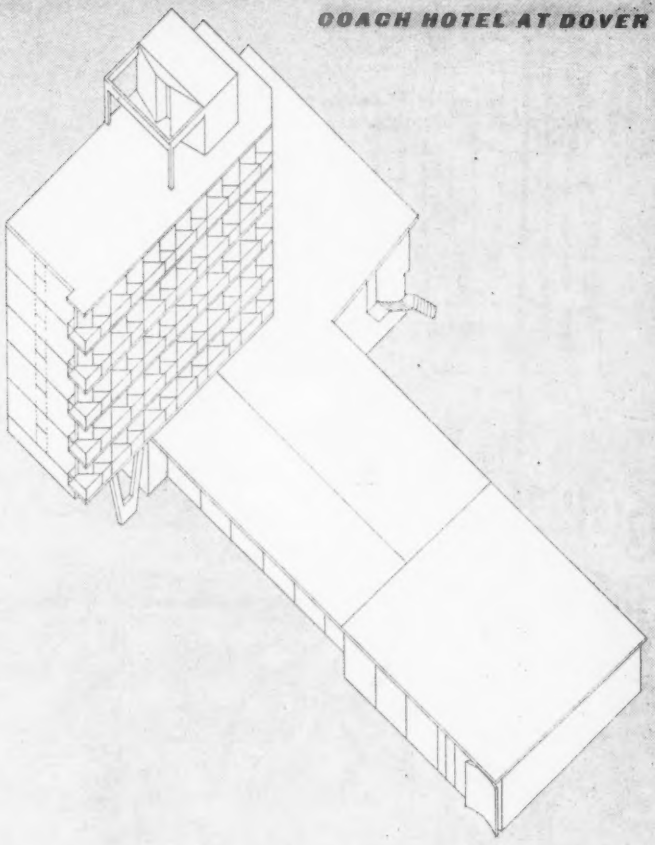
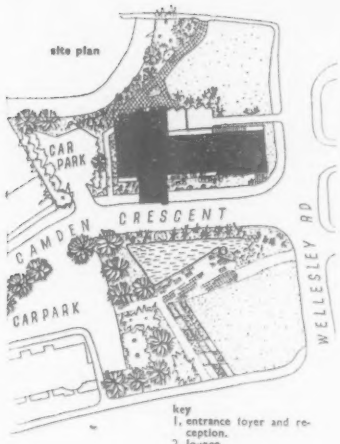
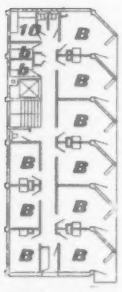
COACH HOTEL AT DOVER



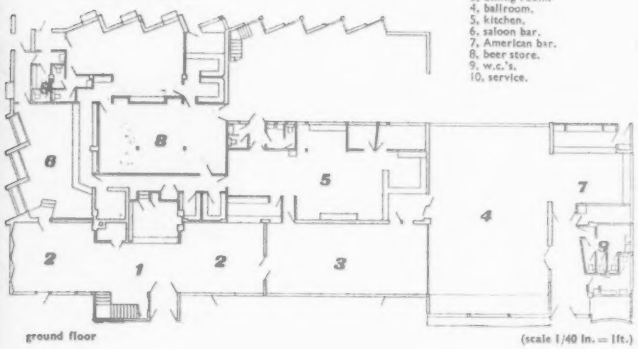
site plan



typical upper floor



key
1, entrance foyer and reception.
2, lounge.
3, dining room.
4, ballroom.
5, kitchen.
6, saloon bar.
7, American bar.
8, beer store.
9, w.c.'s.
10, service.

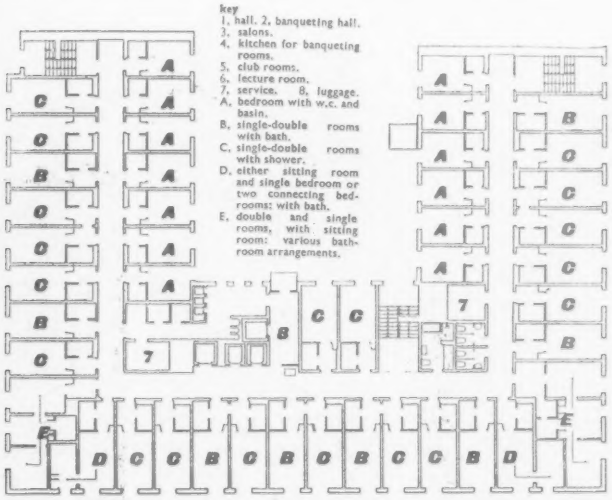


ground floor

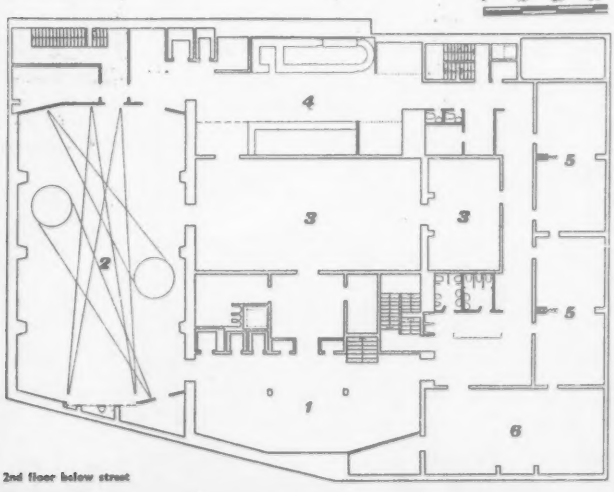
(scale 1/40 in. = 1ft.)

HOTEL IN STOCKHOLM

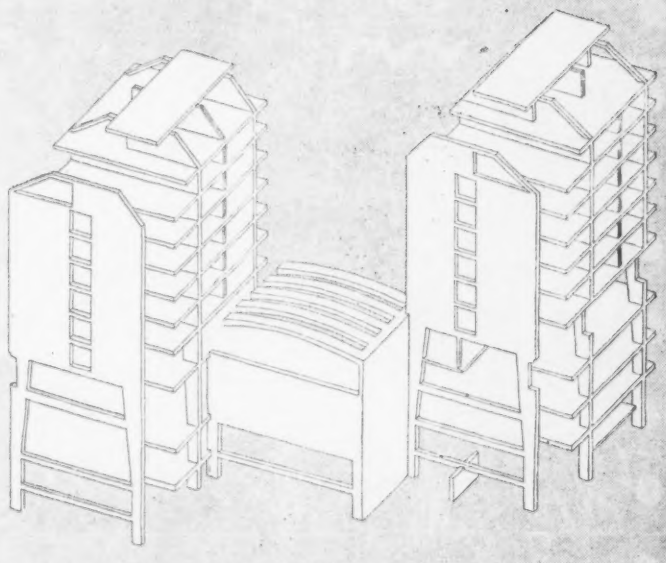
key
1, hall. 2, banqueting hall.
3, salons.
4, kitchen for banqueting rooms.
5, club rooms.
6, lecture room.
7, service. 8, luggage.
A, bedroom with w.c. and basin.
B, single-double rooms with bath.
C, single-double rooms with shower.
D, either sitting room and single bedroom or two connecting bedrooms with bath.
E, double and single rooms, with sitting room: various bathroom arrangements.

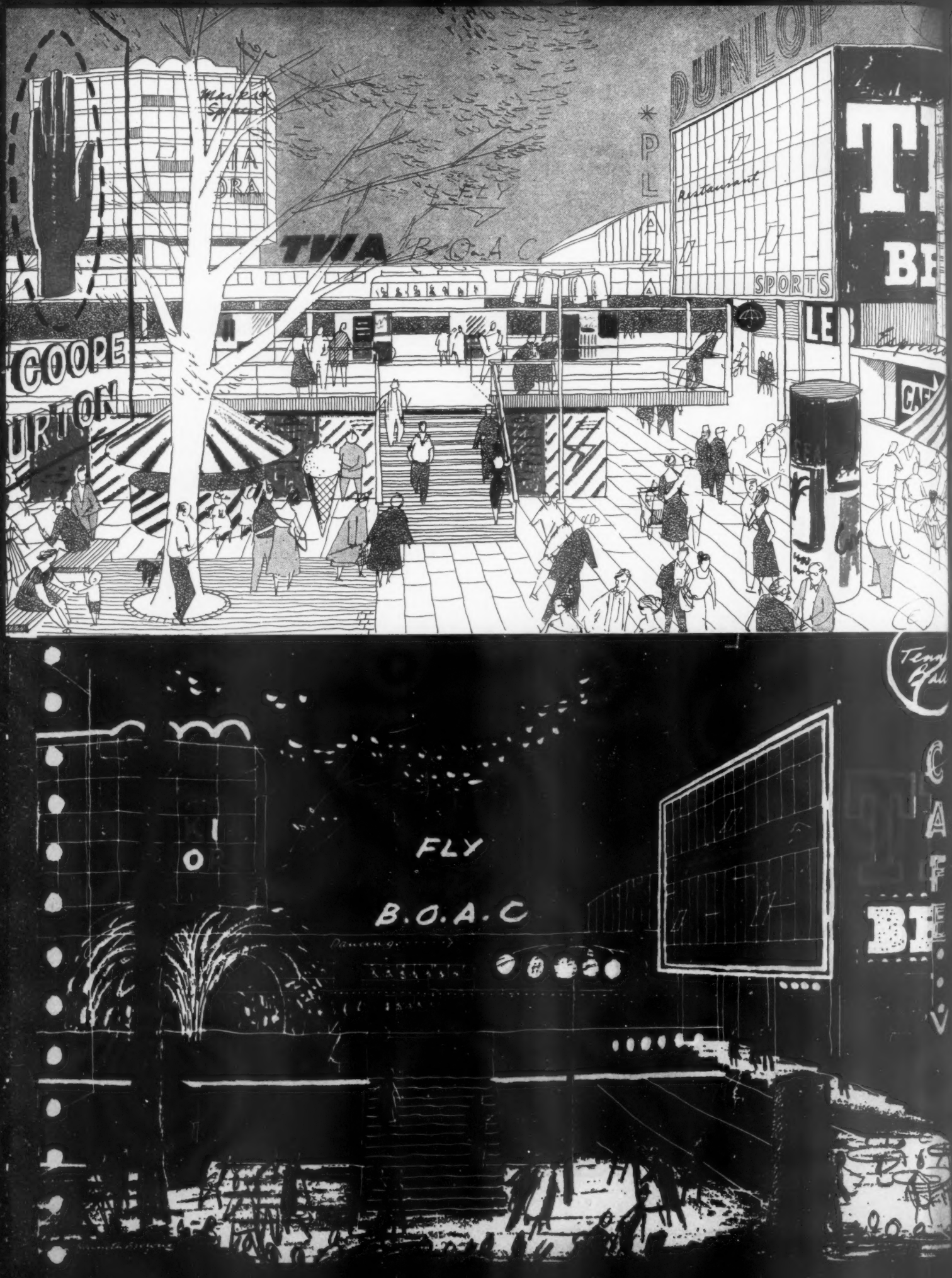


typical upper floor



2nd floor below street




DUNLOP
PLAZA
Restaurant
SPORTS
FLY
TWA
B.O.A.C
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URTON
CAFE
FLY
B.O.A.C
CAFE

Advertising can play a double role in the drama of the urban scene. This has been appreciated by Leonard Vincent, chief architect of Stevenage, and in Kenneth Browne's interpretations of his proposals for advertising displays in Stevenage New Town Centre, opposite, signs, symbols, giant lettering and coloured posters (such as those screening the bus station, middle distance) are seen in the upper sketch contributing to the daytime architecture of the central square. In the lower one, illuminated signs (gathered in some concentration, for this is a maximum-brightness zone) become the dominant elements in the same view and create a glittering pool of brightness that is the planned climax to a series of approaches through less strongly illuminated zones.

Kenneth Browne

SPACE TO LET

PLAN FOR ADVERTISING IN A NEW TOWN

The recent statement by Stevenage Development Corporation that it intends to encourage outdoor advertising in its new shopping centre and the positive proposals put forward for using it to create a 'live' core to the town deserve high praise. This will be in direct contrast to the negative attitude so far taken in the new towns where publicity has been looked on at best as a necessary evil, to be banned wherever possible or emasculated in the name of good taste. In consequence any publicity which has appeared has been over refined, insipid, completely lacking in punch—in fact all toned down and nice so that it won't be noticed.

This negative attitude has arisen from confused thinking; from equating advertising with outrage. Though advertising of any kind is rightly condemned as an abomination in a rural landscape—a 'natural' landscape where it is incongruous—that is not to say that it must be outlawed everywhere. Stevenage has had the good sense to see that it really has something to contribute in a man-made landscape and that the vitality it can bring must not be suppressed for fear of a little vulgarity. Its vitality must be harnessed to townscape.

The shopping centre, market place, entertainment area are the right places for advertising—it is appropriate there and is all part of the feeling of 'place'. Buying and selling, entertainment, gaiety—advertising. It's no good purists trying to separate them and art them up. Illuminated sky signs, giant lettering, neon lights, shop signs, posters are all part of a robust modern life and can add colour, movement, surprise both by day and by night—these are features to exploit, not to kill, for they add the business which, together with the people, makes a shopping centre alive and not just an overgrown model.

However, as we know to our cost, publicity run riot can smash architecture or feeling of place entirely—the advertiser doesn't care a hoot, so the planner must. Consequently, and rightly, the Stevenage plan, prepared by the Chief Architect to the Corporation and his staff* (the architects who are designing the centre itself), defines where skysigns, façade signs, neon and flood-lighting shall go and relates them to the buildings and to an imaginative over-all scheme of brightness zoning at night.

* In particular I. M. Purdy who is largely responsible for the scheme.

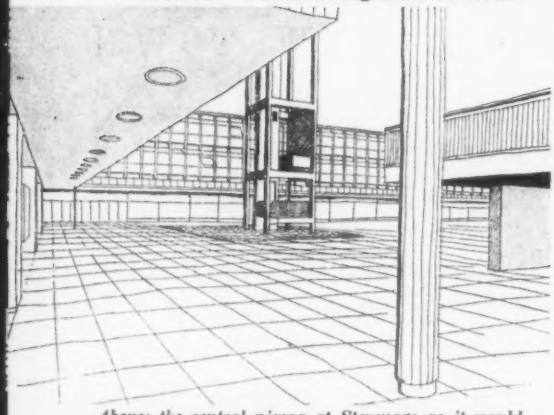
TOWNSCAPE

ANALYSIS OF THE OVER-ALL ADVERTISEMENT POLICY FOR STEVENAGE NEW TOWN CENTRE, PROPOSED BY THE CHIEF ARCHITECT.

signs

In certain places, such as blank end walls giant full façade height signs, lit at night, will shock by sudden incongruity of scale. Illuminated sky signs will top many of the main buildings and these, in addition to their immediate impact, will pinpoint the heart of the town from a distance.

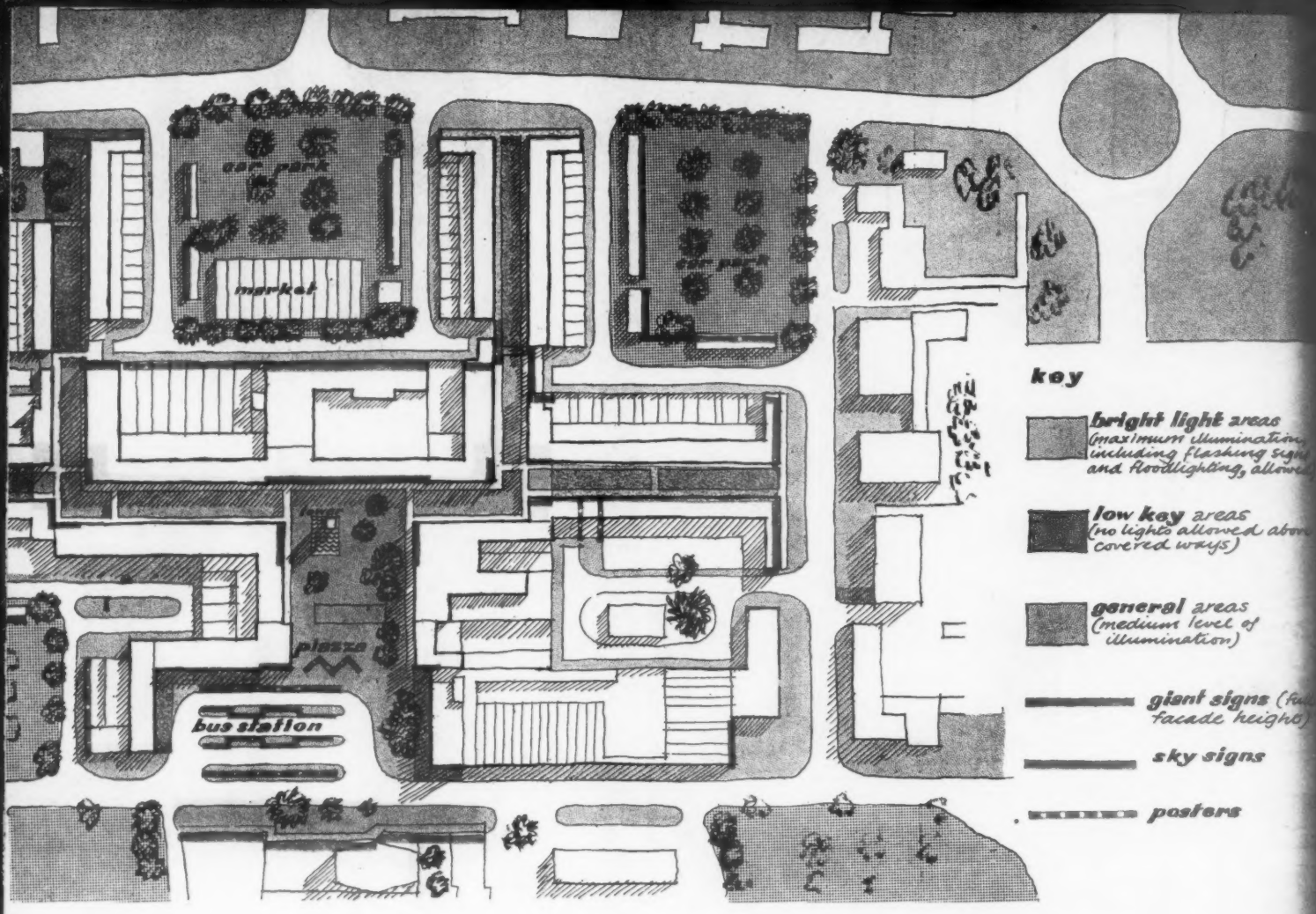
To keep an architectural control, advertisement lettering on the face of buildings will be disciplined to fit into the horizontal bands of opaque glass panelling between the windows and a solid background to letters



Above: the central piazza at Stevenage as it would appear devoid of people and publicity and, right, when the vitality and colour of shoppers and advertising are introduced, as suggested by Kenneth Browne's drawing. The lettering, like the shop symbols, must be bold, not fussy or over-designed, and tailored to the structural discipline of the architecture.

will only be allowed when they are fitted between the structural grid of the façade. If, however, the lettering is free standing it will be allowed to go across the grid and this will give quite a bit of freedom whilst ensuring that the architectural unity is not destroyed. Any signs projecting from the face of a building will have to be at right angles to it and it is to be hoped that in some places illuminated vertical lettering will be encouraged as it gives the necessary interest of an opposing emphasis to the more usual horizontal. Lettering fixed on arcade canopies will have to be open, no solid backgrounds being allowed so that the architecture will still dominate and the height will be regulated to keep a fairly even size. Under the canopies direction signs (i.e. chemist, baker, etc.) only will be allowed but plenty of variety in appearance should be welcomed. Symbols such as fish, umbrella, glasses, etc., have a living tradition and are immediately 'read,' even by a

KGB
CAT
LEMC
PAA
Books & Stationery



foreigner; but again for heaven's sake don't make them 'arty.' Keep them bold.

*lettering**

Considerable freedom will be allowed in the choice of lettering faces, but a guide chart showing preferred faces will be sent to prospective advertisers. That does not mean to say that lettering falling outside the scope of the chart will necessarily be disqualified but it will have to be vetted by the chief architect, who will have power to refuse it.

brightness zoning at night

As the diagram above shows, the small central piazza, the focal point of the whole shopping centre, is approached down partially covered pedestrian alleyways in which the lighting is purposely kept in a low key with no illuminated signs permitted above canopy level. This gives added drama to the event of coming upon the square itself where all the stops are pulled out and maximum light and visual gaiety are encouraged. (See frontispiece, page 122.)

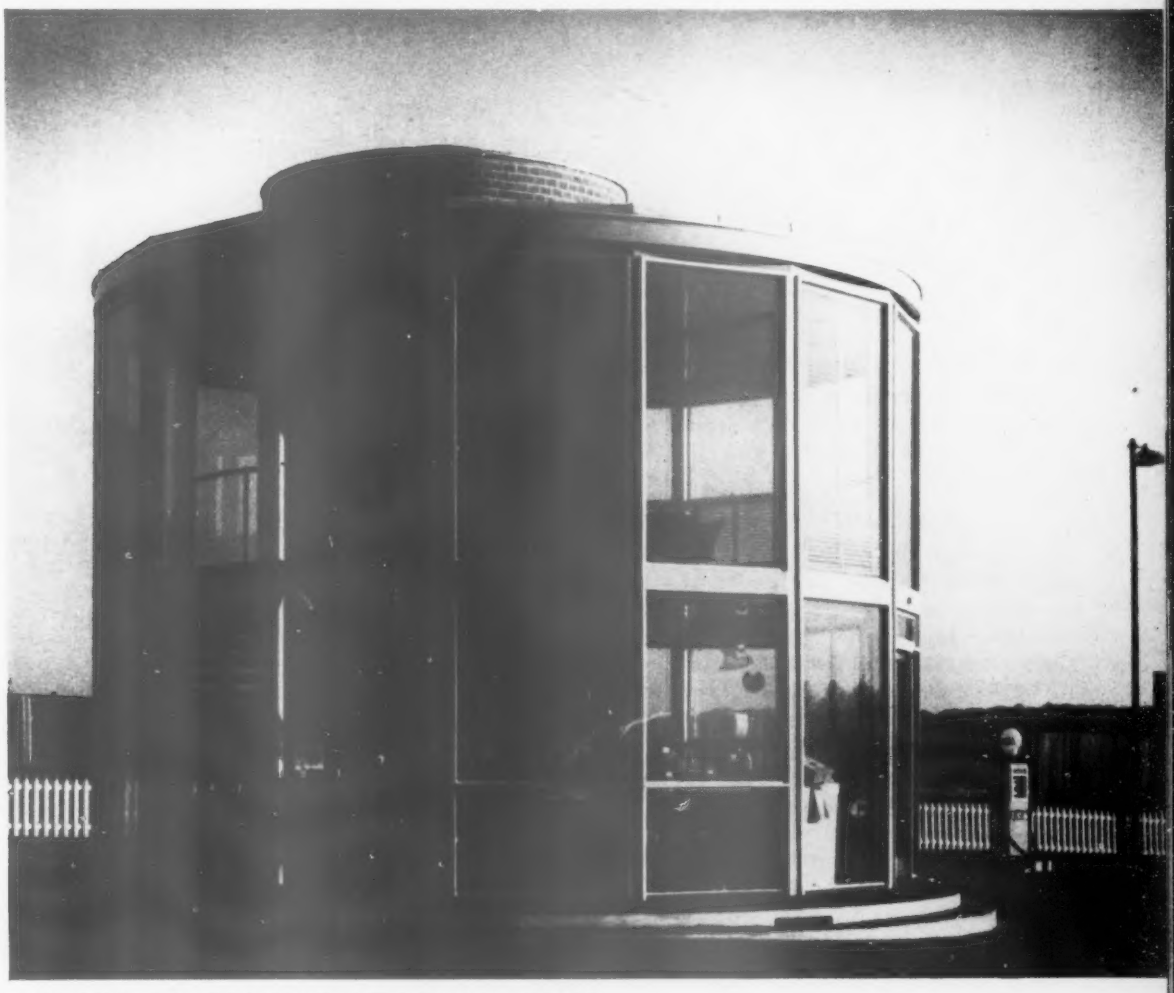
* Note that neon lends itself especially to certain faces, e.g. a heavy sans serif made up of lines following the outline (see 'DUNLOP' on frontispiece and '&' on cover) and for cursive ('Marks and Spencer' on frontispiece) where it is like writing on the darkness of the sky.

posters

The proposal for using posters is an interesting one. Designed hoardings will partly surround the large car parks, adjacent to one of which is the market, giving a tremendous splash of colour on first arrival at the shopping centre and also hiding the ranks of parked cars. The bus station shelters will be formed of poster screens and there will be space for a limited number of posters on zig-zag panels in the central piazza itself. There is, perhaps, a case for more liberal use of them here provided position and size (small) is controlled. For instance, the continental poster drum makes an exciting object in its own right, spaces on walls of arcades might be provided and the walls surrounding the raised area in the centre of the square could be solid with small posters. After all, posters are always changing, unlike costly fixed signs, and, therefore, subtly altering the appearance of the square itself.

Anyway this is a really creative use of advertising and it will help to reintroduce fun and life into the town centre, where it is most needed.

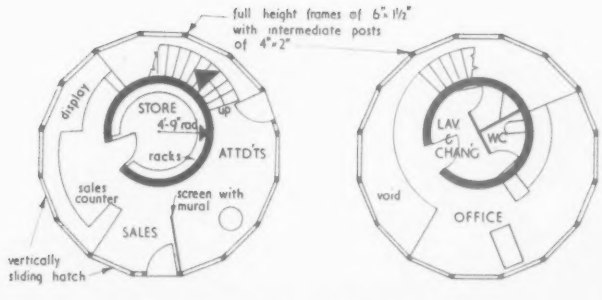
Above, zoning diagram of the new shopping centre, prepared by the Stevenage architects and planners, which defines the intensity of lighting at night. All advertising proposals which make use of illuminated signs, skysigns, neon and flood-lighting will be related to this basic scheme and used to get preplanned effect.



1, *the west side of the administration building.*

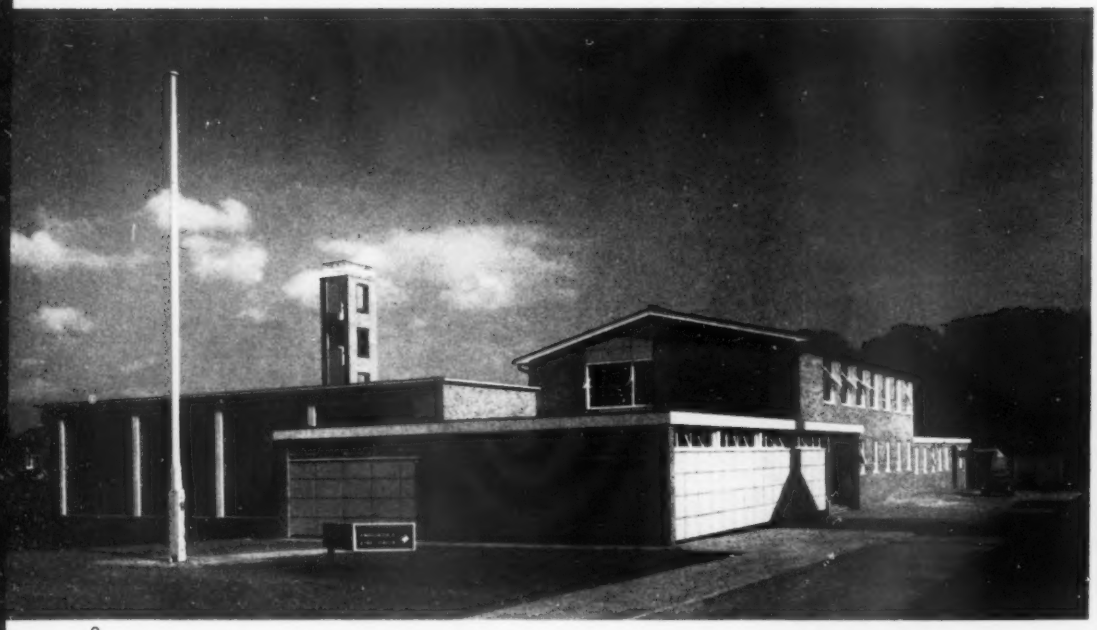
FILLING STATION AT SWANLEY, KENT

ARCHITECTS: JOHN BURKETT, GORDON SHEERE, R. W. WILKINSON; ASSISTANT ARCHITECT: SUSAN WALKER.



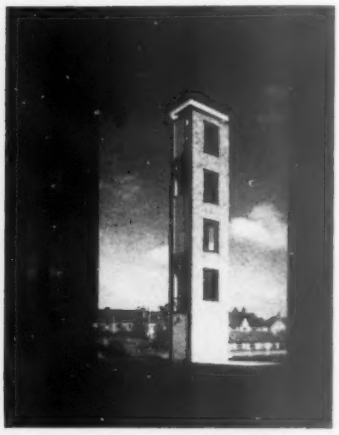
Ground and first floor plans [Scale: 1/16 in. = 1 ft.]

This oilwell filling station is on a three-cornered site on the main Maidstone road, near Swanley. Economical buildings were required with all-round vision from the staff rest room and the manager's office. The two-storey administration building contains a brick drum of which the ground floor is storage space, and a lavatory is above. The floor and ceiling joists radiate from the central drum and are supported by the outer glass-clad framework of 6 in. by 3 in. timber posts, to which prefabricated timber window frames are bolted. The stair is reinforced concrete and cantilevered. Fluorescent lighting shines on the drum and ceiling. The circular public lavatory block on the site is of cavity construction with an outer skin of 4½ in. brickwork and an inner skin of 4 in. clinker blocks. The layout was worked out by the client in consultation with Shell Mex and B.P.



2

2, the fire and ambulance station from the main approach road. 3, the drill tower from the doors of the appliance room. 4, the firemen's dormitory where, as firemen sleep there on alternate nights, there are two sets of bedding and two kit cupboards for each bed. The ceiling is white and the beams white.



3

FIRE AND AMBULANCE STATION AT SLOUGH

COUNTY ARCHITECT: F. B. POOLEY: ASSISTANT COUNTY ARCHITECT: R. WALKER; ARCHITECT-IN-CHARGE: NORMAN TAYLOR.

The station is near the junction of Tuns Lane and the Bath Road. It departs in several respects from usual fire station design: the firemen's dormitories are on the ground floor of the two-storey block, with the recreation room above, and the hoses, instead of being hung vertically, are dried in a special hose drying room, in which they are laid out on horizontal racks, connected with hot-air trunking, and have hot air forced through and round them, the drying process taking two hours. The hub of the scheme is the watchroom, from which all station activities are overseen and the traffic lights outside the station can be controlled; the public also have ready access to it. The steel framed tower is used for practice climbing with hook ladders, hose drill, etc.; the sheet metal panels are painted light blue. The appliance room and garages are steel frame; elsewhere load-bearing brickwork is used. Staircases are concrete; that in the main entrance hall is a concrete spine beam with cantilevered teak treads. Horizontal centre-pivoted metal windows are used in most parts.

4

fire station
1, appliance room.
2, locker room.
3, equipment cleaning.
4, drying room.
5, showers.
6, ablutions.
7, dormitory 1.
8, entrance hall.
9, dormitory 2 (officers).
10, bathroom.
11, quiet room.
12, watch room.
13, officer in charge.
14, station office.
15, station store.
16, staff toilet.
17, women's toilet.
18, boiler room.
19, fuel store.
20, garages.
21, emergency lighting room.
22, fan room.
23, hose repair store.
24, breathing apparatus store.
25, workshop.
26, AFS appliance room.
27, AFS office.
28, store.
29, hose drying chamber.
30, drill tower.

ambulance station
31, women's toilet.
32, women's dormitory.
33, men's dormitory.
34, kitchen.
35, men's toilet.
36, entrance hall.
37, statistics office.
38, control room.
39, driver's room.
40, garage.
41, repair garage.

combined accommodation
42, landing.
43, billiards recess.
44, recreation room.
45, dining room.
46, kitchen.
47, bar.

BOOKS

BY THE DAWN'S EARLY LIGHT

ROMAN MORNINGS. *By James Lees-Milne. Wingate, 17s.*

Rome, for all the wealth and magnificence of its buildings, has received less attention from the English critic of architecture than either Florence or Venice. It may be this very opulence which, in contrast to the grace of the northern cities, fails to find in us so responsive a chord. It has been remarked that Rome is a city for the professional rather than the tourist. St. Peter's and the Spanish Steps may make their immediate effect, but in general the fierce paganism which underlies much Roman life and work needs slow assimilation before a near approach may be made to æsthetic appreciation.

Mr. Lees-Milne analyses eight examples of building from the Ancient, Early Christian, Romanesque, Renaissance, Baroque and Rococo periods. In spite of his attempt to view his chosen subjects in the dispassionate morning light, it is significant that the two most successful portraits are those of essentially pagan origin—the Pantheon and the Fountain of Trevi—in which some of their atmosphere contrives to break through the architectural criticism and to defy its objectivity.

The history of the Pantheon presents a study in the spasmodic development of an archæological conscience, showing doubtful progress from the outright plundering in 663 by Constans II, Byzantine Emperor, to the further thefts by Pope Urban VIII almost a thousand years later, and to the various unhappy efforts at restoration. Nevertheless, the building remains in essence undisturbed and clearly recognisable as the same magnificent structure which raised its dome to dominate the surroundings early in the second century.

The other buildings described all suffer severely from the lack of good illustrations without which no book such as this can be considered complete. In some degree the literary and historical backgrounds we are given help to conceal this deficiency and many interesting comments are brought to light such as Dickens's assessment of the works of Bernini and Borromini as 'the most detestable class of productions in the wide world.'

Bramante's Tempietto finds a rightful place in representing the classic Renaissance and, as one of the purest of Roman buildings in concept, form and detail, achieves an importance far beyond its size. The charm almost amounting to gaiety of Borromini's style is seen to be curiously at variance with his known character, introspective and depressive, and is instanced in his church of San Carlo alle Quattro Fontane.

Mr. Lees-Milne laments from time to time the Subtopian accretions and the popping, seething swirl of Vespas which prevent peaceful contemplation of past masterpieces. He should not, however, be too unhappy; for Rome can never have been a place of rest or quiet and to imagine it so would be to imagine it a dying city.

Elaine Denby

ANDREWS, JAMES & VEBLEN

ARCHITECTURE, AMBITION AND AMERICANS. *By Wayne Andrews. Harper & Bros., New York.* $7.50.

This book is a racy run-through of American buildings, well worth reading, accompanied by a peck of salt: the first pinch to be taken on the first page of the foreword, where the author says . . .

> 'This is a book, not about building in America, but about architecture as a fine art. Or to put the matter more directly, this is a book about *taste*. As I intend to use the word, taste is the record of the ambition which leads the architect to spend more time and energy than is reasonable, and the client, often but not always, to invest more money than common sense would dictate.'

Taste as thus defined is a quality which may coincide with architectural quality or it may not. There is no direct link between the two: sometimes the most money and the trickiest detail has brought out the best architecture (Adam in the 1760's, Southwell and Exeter in 1320): at other times it has conspicuously failed to do so (the 1830's with the National Gallery, the 1920's with the Dorchester Hotel and the Bank of England remodelling).

This definition seems to premise in the rest of the book a pyramid of overdressed buildings with Addison Mizner—who certainly used up more money, if not time, than most—at the top. In fact, most of the right buildings get in, apart from the two huge self-excluded segments of engineering (no taste) and the vernacular (no money): only when a furore of 'taste' was in progress is the roll call seriously defective and a smart practitioner like R. M. Hunt, quick on the drawing board, appears side by side in the scale of architectural values with the several brands of genius contained inside the firm of McKim, Mead and White. By the end of Chapter Six we have got through the Chicago School and Frank Lloyd Wright without any serious worry. Then, in the chapter on Modern Times, comes the bombshell. What Mr. Andrews has done is to oppose two types of modern architect, which he calls Veblenite and Jacobite, after the economist Thorsten Veblen and the philospher William James. Their qualities are best explained by reproducing his own table:

Veblenite Architects	*Jacobite Architects*
Cool.	Warm.
Impersonal.	Personal.
Anti-invididualistic.	Individual.
Dogmatic.	Casual.
Absolutist.	Pragmatic.
Worshippers of the machine.	Willing to take the machine for granted.
Spellbound by modern materials such as steel and glass.	Much more concerned with the texture of materials than with their modernity.
Experts at factories, sanitariums, and other impersonal buildings.	At their best in domestic work.
Willing to disregard the site.	Haunted by the site.

Having made this division, the profession is carved up: Gropius, Mies and S.O.M. are inevitably Veblenite: the Jacobites are the Bay Regioners, Mr. Andrews himself, and the inevitable archetype, Frank Lloyd Wright. Belluschi and Neutra become schizophrenic, the former J. but occasionally V. (Equitable Building, Portland): the latter V. with lapses into J. (wooden private houses).

This is absurd, for two reasons, both of which show the same kind of wrong headedness—of replacing an infinite number of shades of grey by equivalent lumps of black and white. The first fallacy is statistical: to cut a complex and fairly homogeneous profession up the middle and shuffle off its members to one extreme or the other is rather like a sociologist inferring from the Kinsey statistics that there were two—and only two—types of woman, iceberg and nymphomaniac.

The other point at issue is older and sadder. Veblenite and Jacobite are just new names for opponents in the oldest dispute in architectural criticism—form v. content or function v. expression. Whether it is Pope railing at Blenheim for not being functional or Pugin screeching over Grecian churches for not expressing the true principles of Christian architecture, critics have always assumed in theory that they are opposites—at best to be reconciled, at worst to be fought to the death over. Surely we can see past that now, to what in fact most critics have always admitted in practice: that form and content are abstractions for sets of constituents of the total architectural problem. 'Function' and 'expression' are abstractions for similar (but not identical) sets. And in all works of architecture worth the name the constituents have never been separable—they have become fused. As in fact they were fused in Hilversum Town Hall—but not in the saddening harvest of English imitations like Hornsey and Romford; as they are fused in Ronchamp but are most

unlikely to be fused in the crop of bogus Ronchamps we are due for.

And there's the rub. What Mr. Andrews is exalting above everything else in calling himself a 'frantic Jacobite' is personal vision and self-expression—which is fine if your name happens to be Dudok or Corbusier or Harwell Harris. But to make the brilliant exception into a standard and then to expect Joe Bloggs, A.R.I.B.A. (or A.I.A.), to produce comparable buildings shows childlike but undeserved faith in human ability. Genius will come to the top anyway, even if it comes out skew, like C. R. Mackintosh: the difficult thing is to create a basis for a respectable average, and that is part of what the maligned Veblenite architects like Mies and Gropius are trying to do: to produce clichés, in fact. Imitate Mies badly and you will have a dull job but one which will fit into the landsurface well enough; imitate Wright or the Bay Region style badly and you may very well have an irreparable nonsense.

Ian Nairn

THE STONES OF MALTA

THE BUILDING OF MALTA, 1530-1785. *By J. Quentin Hughes. Alec Tiranti. 42s.*

Maltese architecture has had to wait an unconscionably long time for an historian but at last Dr. Quentin Hughes has come forward with a full-length study. He describes every important building on the island, diligently tracing the sources and development of the various styles employed, and reproduces over two hundred photographs which, together with some ninety plans and elevations, form a unique and valuable corpus of plates. Yet it may be doubted whether he has done justice to his subject.

The wealth of architecture produced under the aegis of the knights is remarkable not only for its occasional flourishes of baroque accomplishment, but for the unlikely circumstance, which Dr. Hughes rightly stresses, that it was designed almost exclusively by local Maltese architects and masons. It is mainly interesting, therefore, as a provincial and sometimes distorted reflection of sophisticated continental fashions. Unfortunately Dr. Hughes will have none of this. So ardent is his enthusiasm for his subject that he is blind to its natural limitations and thus he is led into discussing the meanest Maltese chapel as if it were some masterpiece by Michelangelo or Bramante. He compares, for example, the rude and cumbrous Verdala villa at Rabat with the villa Farnese at Caprarola, draws a parallel between the parish church at Quormi (plainly the work of some unlettered mason) and Giuliano da Sangallo's project for S. Lorenzo at Florence—and even goes so far as to suggest, in a footnote, that Sir Christopher Wren might have derived some features at St. Paul's from a study of Maltese village churches. Such preposterous fancies inevitably reduce one's confidence in the author's critical and stylistic comments; and, it must be added, a similar lack of discrimination is evident also in the scholarly material, for Dr. Hughes fails to indicate the degree of reliability of the various printed sources from which he draws his information on authorship and dating.

However, great indulgence must be allowed to the enterprising pioneer—and it is as such, no doubt, that Dr. Hughes would wish to make his bow before the public. His book goes a long way towards filling an important gap in the history of European architecture and he must be congratulated on the diligence with which he has assembled so imposing an amount of material on these interesting and often surprisingly beautiful buildings.

John Fleming

STRUCTURALLY OLD, SPATIALLY NEW

FIFTY MODERN BUNGALOWS. *By Felix Walter. Architectural Press. 18s. 6d.*

The terms of professional relationship which survive today between architect and client were framed when clients were substantial, labour was cheap, and the designing of private houses could bring in a living. This collection of recent designs, of which 45 are already built, is a testimony not only to the architects, who have accepted a type of commission more exacting and less remunerative than any other, but to those clients who have succeeded in finding out what architects really do and what a gulf lies between the custom-made house and the estate developer's product. Our deteriorating surroundings remind us that the wealth of professional skill now available and evident in these examples has hardly begun to make its mark on the scores of thousands of private houses now built annually.

If this talent were brought to bear, would a new vernacular make its appearance? The best conditions for this would be created by an alliance between a centralized but adaptable source of design and a system of factory production. Such a prospect is hinted at in one design, evolved by a firm prefabricating houses in timber to a modular system which allows for a good deal of individual modification to each of a number of standard plans. Of the remaining designs no fewer than thirty-eight have conventional cavity-wall construction; four are timber-framed; two are framed in reinforced concrete and one in steel. Two have concrete cavity walls and one is stone-built; the remaining design has a single thickness of brick lined with glass fibre and plywood. This prevalence of conventional building methods brings us face to face with the fact that the visual and spatial qualities of these buildings, modern though they may seem, are not, as most of us have been taught to believe, the result of developments in materials and technique. In planning, moreover, the universal characteristic is the extension of the common living-dining-cooking space at the expense of the bedrooms. Here at least open planning—whatever its structural ancestry—shows a comforting reversion to traditional cottage and farmhouse practice, with plate glass—the only new material found in almost every design—transforming the relationship between household and environment into something new and exhilarating.

Useful comparisons between building costs can be made with the aid of this book; they vary in the case of two houses built in 1954 from 36s. to 75s. per square foot. It is not always possible however to determine whether the figures quoted are inclusive of drainage work, outbuildings, etc., and a slightly more uniform presentation of technical data would improve an otherwise informative and well-illustrated book.

David Thomas

Shorter Notices

REBUILDING ST. PAUL'S. *By Jane Lang. O.U.P. 42s.*

This was the third book to appear on Wren in 1956. The other two—by Viktor Furst and E. F. Sekler—both had new material to describe and new things to say about it: this book is effectively a rake-over of the available published material made up into a chronological account of the building of St. Paul's, which is also a personal biography of Wren in a style that can sometimes be rather embarrassing—'About now a small incident occurred which Sir Christopher never forgot . . .', etc. The story is competently put together, and very readable apart from the coy moments, but is devoid of anything but second-hand opinions and interpretations of Wren's work. The illustrations are good, mostly ex-Wren Society, and oddly enough the two most interesting things in them concern Old St. Paul's: the drawing showing Inigo Jones's Bramantesque detail solemnly wrapped round an apsidal Norman bay in the south transept, and Hollar's engraving of Jones's west front and the extraordinary little church of St. Gregory, which used one of the cathedral's turrets as its tower. The west front of St. Gregory is Artisan Mannerist, like St. Catherine Cree, and must have been refaced within a year or so of Old St. Paul's, which is odd, to say the least.

There are still no adequate biographies of—to name only a few—Hawksmoor, Chambers, the Cockerells, Barry, Burges, Butterfield, Pearson and Voysey; each redundant book that nibbles at an already depressed market lessens the chance of there ever being any.

I. N.

CAERNARVONSHIRE, *Vol. I; Royal Commission on Historical Monuments in Wales and Monmouthshire.* 1956. *£3 5s.*

This sets out to be a survey and inventory, and is: what more can be said? Celtic countries are most unrewarding to the ordinary architectural antiquarian, for the complete monuments are few and crude, and the ruins and early remains need expert excavation and interpretation, not an inventory. Meanwhile most of the true interest, whether in vernacular painting of Methodist chapels or the 'group value' of farms and town streets, and the small but vigorous North Wales modern vernacular, slips by unrecorded. There is not even a word of assessment of Plas Mawr at Conway, one of the few worthwhile monuments in the book (though, to be fair, a third volume, appearing in 1960, will contain 'appendices giving a general discussion of the monuments.')

It seems sad that when so much imaginative and scholarly thesis material is almost inaccessible for lack of a publisher, these volumes, whose contents could so well be stored at a national archive, with photostat copies where needed, keep trundling on.

I. N.

FUNCTIONAL TRADITION

MULTIPLE USE IN SHREWSBURY

A familiar combination in early industrial architecture is a fine, simple structure in the functional tradition (AR last month) concealed behind a naive, neo-classical frontispiece. This example in Howard Street, Shrewsbury, is an extreme case: the street elevation, 1, in stucco painted cream and Indian red, is unusually naive and clumsy, though effective in its fashion, and through it one walks into an unusually impressive, lofty warehouse, 2, with brick walls, iron columns and a heavy, open timber roof.

The building has also had an unusually varied history. It is now used as a railway warehouse but it began as the terminal warehouse of the Shrewsbury (or Norbury) branch of Telford's Shropshire Union canal—a branch that is now derelict. It was chiefly used for cheese and butter, and served at the same time as a market for this kind of produce. It was converted to take railway rolling-stock when the south end of the canal was filled in, and on one occasion was used as a mayoral banqueting hall.

The building, which was built by Fallowes and Hart, of Birmingham, in 1835,* has a vaulted brick basement, formerly a wine and bottling store, and still preserves parts of its original floor of slate slabs. It is now scheduled as an ancient monument. J.M.R.

*Information from Dr. Pevsner, from the forthcoming Shropshire volume in his "The Buildings of England" series.

TRAVEL

LA MARTINIÈRE, LUCKNOW

The very grand scale and uninhibited eclecticism of La Martinière College make it one of the most spectacular monuments of British India. Built for Claude Martin, a French soldier who changed sides after Pondicherry and later did well out of indigo, its detailing just fails to live up to the promise of the fine

1

multiple use in Shrewsbury

1, exterior and 2, interior of a warehouse in Howard Street, Withington, Shrewsbury, originally the terminal warehouse of the Shrewsbury branch of Telford's Shropshire Union Canal.

2

1

column, 1, with its echoes of Blenheim or Stowe, that stands in the lake before the house, or the rather Vanbresque grouping of the main masses of the house itself. The combination of castellar elements in the centre-piece with quadrant colonnades as open as the *barchesse* of a house by Palladio, 2, is clearly very proper to the country retirement of a military man, but in the handing of the smaller elements one senses that his unknown architect had not taste nor practice enough to keep book-learning within bounds – beyond the dra-

2

matic statuary in 3 one sees that the coupled Doric columns of the colonnade, derived from Serlio or Vignola, are too thoughtlessly related to the panelling of their pedestals below and of the parapet above. Martin died in 1800, having lived in his house only five years, but he perpetuated his name by endowing it as a college.

Roderick Cameron

EXHIBITIONS

SCULPTURE

Almost every good 20th-century sculptor has, at one time or another, held a position of trust in the polytheistic temple without walls, so it does not come as altogether a surprise when one of them produces an idol on his own account. But it doesn't happen very often, and because I find it difficult to see the point of sculpture which does not engage my appetite for idolatry I am almost excessively grateful when I can say that another one has appeared. It is sometimes contended that there is no middle course open to a sculptor, and that if he does not produce an idol he only makes a knick-knack. But this is an extreme point of view, and is usually put by religious intellectuals intent upon defending specific iconographies. In any case, it goes without saying that many knick-knacks have great beauty and expressiveness.

A very pure example of the knick-knack, quite unscathed by beauty or expressiveness, is the massive piece outside St. George's Hospital which Nikolaus Pevsner calls 'an ill-advised portrait in stone of a big gun.' A very fine example of the idol is Henry Moore's stone carving of a recumbent figure in the Tate: it is inscrutable and undemonstrative; it has freed itself from the problems of the man who made it; it is ripe for anonymity, and because it inspires respect for the irrational and the unknown will find a place in the temple without walls. The Big Gun and the Recumbent Figure might be said to mark the limits of the contemporary sculptor's field of operations.

At the second open-air exhibition presented at Holland Park by the LCC, there is nothing quite as fatuous as the Big Gun and certainly nothing as fine as Moore's Recumbent Figure. The sculpture standing in the open represents the good committee man's dream of a working compromise and is an extremely chaotic spectacle. The mid-nineteenth century marbles housed in the orangery are intended as a 'startling and stimulating contrast' to the contemporary work outside, but the contrast is meaningless because the nineteenth-century pieces only represent the ultimate degeneracy of the academic approach to classical sculpture: they never did and never will constitute any kind of a challenge to anything. They are none the less fascinating, for the sculptors, almost to a man, were virtuosi of the strip-tease, and by devising unnecessary ingenuities of

3

posture and playing exaggerated tricks with sliding drapery they gave the unexposed parts of their anæmic gods and goddesses a highly inflationary value.

This is the only open air exhibition organized by the LCC from which the work of foreign exhibitors has been excluded, and so many of the pieces on view are of indifferent quality that visitors from abroad may well be given the impression that our so-called renaissance is fizzling out. Even Moore's 'Warrior with Shield,' is far from satisfactory, and the wounds which one supposes the figure to have received in battle do not account for all its formal shortcomings. Moore's only serious challenger is Butler, but his rather ludicrously named 'Girl 5456' (is this a misprint of the date?) is not the best of his recent works and is too vital to be true. The gleefulness of Kenneth Armitage's

1

crazy, mixed-up girls has become a little mechanical in his 'Two Seated Figures,' 1; furthermore, the formal joke does not carry far, and from a distance the configuration looks like an old table that's rotting away. The unhappiest case of all is Robert Clatworthy's 'Bull.' For some time Clatworthy has seemed to be one of the most promising of our younger sculptors, but this bull is closer to the banality of the Big Gun than any of the knick-knacks produced by members of the Royal Academy of Arts and the Royal Society of British Sculptors. It is a mere facsimile of a bull, with angular slices cut out of its flanks to simulate the slab-like construction of some of his more successful works—a treatment which in fact looks like a jocular reference to beef-cubes.

McWilliam's 6ft.-high portrait of Elisabeth Frink, 2, is a likeness which brilliantly reproduces her imposing presence, without managing to become a presence in its own right. Miss Frink herself displays her rather feverish style in a full-length 'Warrior' without arms: it establishes a curious correspondence with McWilliam's effigy, for it has the look of being a male

2

version of her own physique, and can be considered not simply as a warrior, but as an unpremeditated image of Mars disarmed by Venus.

The German sculptor Wilhelm Lehmbruck, who died in 1919 at the age of thirty-eight, was exceptionally gifted, but the notable selection from his sculpture and drawings shown at the Tate Gallery under the auspices of the Arts Council makes it clear that we were seeing his greatest work when his 'Kneeling Woman' was included in an open air exhibition at Battersea Park a few years ago. Sometime before he created the 'Kneeling Woman' he came under the influence of Maillol, and enough of his feeling for the Frenchman's warm paganism remains in this pensive masterpiece to keep its expressionistic elongations within bounds and give its profound melancholy a kind of sensuous equilibrium. Thereafter, his tall, lean

3

figures hunger too demonstratively for the Absolute and lead him into macabrely tormented interpretations of thinking and praying. Even the exquisitely graceful forms of his 'Bust of a Girl,' 3, dated 1913-14 and completed just before he left Paris, seems to me to be marred by the neurotically romantic treatment of the eyes.

The miscellany of sculpture and drawings by six sculptors recently sponsored by the Zwemmer Gallery was given distinction by a masterly bronze of a horse, the work of Marino Marini, 4. It was imagina-

4

tively placed in the proximity of that huge empty shell of a sculpture by Moore, previously exhibited at the Leicester Galleries, which he calls 'Exterior Form'—a kind of deserted womb which ought to look horrible but is made seemly by a hard, strong roundedness—and the Marini horse looks as if it grew inside it and took its shape from it. It would be difficult to pay the Moore a greater compliment, for the Marini, made in 1939, is one of those rare works which, if I may quote Adrian Stokes out of context, we 'go over' with eye and touch 'like devotees clambering over a gigantic idol.'

The name of Ivor Robert Jones is new to me, but he is not a young man and deserves to be better known. His predilection for images of people in late middle-age is not likely to bring him great popularity, but the large figures which he recently exhibited at the Beaux Arts disclose a fine sense of sculptural mass even when, as in the example reproduced here, 5, the

5

6

figure is hollow and backless.

It is rather a long time since Eduardo Paolozzi exhibited a large work, but he has contributed a 68in. bronze called 'St. Sebastian,' 6, to a travelling open air exhibition arranged by the Arts Council, which is probably his most considerable achievement to date. It owes something to Dubuffet's mordantly comic knick-knacks, but has a haunting presence of a kind that is not to be found in Dubuffet's snooty little pumices. Paolozzi's figure is also comic in a fashion, but it is about as amusing as that charred Korean who was seen walking about after being burnt by a naphtha bomb. This may well be Paolozzi's offering to the temple without walls, for, as idols should, it inspires respect for the irrational and the unknown.

Robert Melville

PAINTING

BELLOTTO'S WILANOW

Though unworthy men may gain occasional immortality at the hands of a great portrait painter, it is doubtful if the same is ever true of buildings: the Wilanow palace, that made so great an impression at the recent exhibition of Warsaw Bellottos at the Whitechapel gallery, was clearly worthy of the four great views in which Bellotto fixed its image in its hey-day. Yet it was not the creation of a single architectural mind, and its building history is most unclear. The core of the building is the simple block with short side wings, reputedly designed by King John III Sobieski himself, soon after he bought the site outside Warsaw

1

in 1677. But the rich centre-piece that crowns it in 1 seems to have more in common with the grandiose treatment of the court-face on the entrance side, as it appears in 2, of which Agostino Locci had charge from 1681 onwards, together with a varying team of assistants that included at one time the great Andreas Schluter.

2

However, the main part of the Villa Nuova (for which Wilanow is simply a Polonization) must have been completed before Schluter joined the team, and he seems to have been employed chiefly as a sculptor. Construction work was not resumed until after the Princess Sieniawski acquired the property in 1720, and set Spazzio and Fontana to work adding the strange 'neo-classical' open galleries on the rear corners of the wings—in 3, Bellotto affords a view into the hollow void of one of these galleries, as well as the equestrian statue of John III in the flanking bay. The sense of spatial penetration in the painting of this gallery is remarkable in an artist of the 1770's, and this rather domestic cornerwise view of so grand a building is also remarkable in another sense, for it provides a clue to Bellotto's mastery in architectural painting. Reference back to 2 will show that there was no structure high enough, nor in the right place, for 3 to have been painted by direct observation, and all the views of the rear of Wilanow have the air of having been constructed from measured or annotated drawings—in other words, the painted buildings were constructed almost as real buildings are. One wonders even if Bellotto had access to architects' drawings among the estate papers, because the grand view along the garden-terrace, 4, raises a problem that suggests he did. The terrace was never completed in the form there shown, but his view cannot be a pure piece of fancy because out of its most fanciful features—the four fir trees planted along the terrace edge—two at least, flanking the central steps, and probably more, can be identified in photographs taken early in the present century.

painting: Bellotto's Wilanow *is seen opposite* ☞ *in two views of the garden side from the eastern corner in 3, top (detail) and from the other end of the terrace in 4, below.*

Michel Santiago

COUNTER-ATTACK

20. Fulham, London (Borough Council): Fulham Grange has now been declared by the Minister of Housing to be 'past saving,' a decision which will hardly surprise anyone who has seen it recently. 1. The Minister's report says: 'Had the Fulham Borough Council been willing to come to terms with Captain Broadwood at the outset, and had the building not become the ruin it now is, there would in all probability have been a good chance of restoring it.' Captain Broadwood wanted to buy the Grange, which consists of nos. 38 and 40 North End Crescent, among the earliest semi-detached houses to be built in this country, and once the home of Samuel Richardson and Burne-Jones, and convert it into flats and maisonettes. He did not want the Council to do the work, or give him the money to do it, he simply wanted to buy the house from them, but they carried out delaying tactics, refused to agree a price, and now the building has deteriorated so much

1

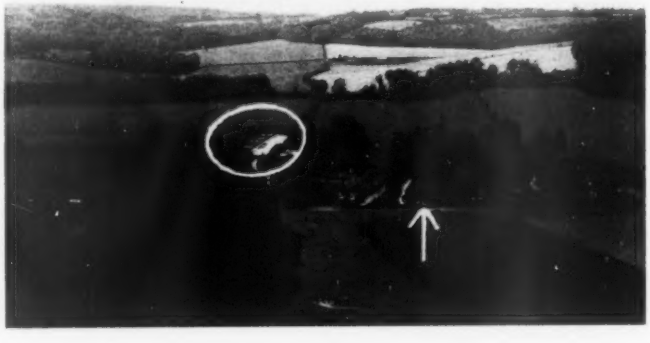
that it will have to be pulled down; the roof has already gone and the house is little more than a ruin, surrounded by a wilderness where the garden once was.

This is a particularly shocking example of the way in which local authorities can, if they wish, legally destroy a building even though it has a preservation order on it; they can harry and muddle and refuse to give a decision, and all the time the timbers are rotting, the windows are broken and no one can do anything about it. There is no reason why decisions like this, where the owner is a public body, shouldn't be subject to the same sort of time limit as ordinary planning applications.

21. Indoor TV aerials: On page 150 are brief details of Labgear Bi-Square indoor aerials. The map, 2, shows the area (shaded) in which the Band 1 aerials will give good results providing the building isn't steel framed. For the first time indoor aerials are now practicable over a large part of the country: the outside aerials have a fairly short life and it is up to planning officers to publicize the indoor models as much as they can: the Bureau will gladly give more information.

2

22. Turville, Bucks (Wycombe R.D.C.): This is the best village in the Chilterns, and the best part of it is the view down by the windmill on the road from Fingest to Ibstone, 3 an immemorial English village group, completely unspoilt, and under forty miles from London. The Council have recently put up two sets of buildings, the cottages (arrowed) which fit into the village beautifully —which in fact make the group look *more* compact than it was before—and the bungalows (ringed) strung out away from the centre along a fearful chalky gash, which will never become part of the village. They seem, inexplicably, to be equally proud of both; in fact one is an ornament and the other an eyesore. Would they, for Turville's sake, do the only thing possible with the bungalows and plant around them as thickly as possible?



3

23. Burnham, Bucks (Eton R.D.C.): In the late 1930's a hole was made in Burnham's pleasant Church Street by the demolition of the old market house and some cottages. Now the Eton R.D.C. plan to fill this gap—with a car park and public lavatories, which will simply perpetuate the hole which one could previously hope was only temporary. The obvious solution here is to build houses or shops back up to the pavement instead of making the street fall even further and more hopelessly apart. It is not too late to think again

4

5

about this and we hope the Council will; the car park could easily be provided with an arched entrance like a coaching inn; Godalming, Surrey, has recently done a very neat job in this way. The then-and-now photographs, 4 and 5, are a fearful example of how a village centre can disintegrate: 4 was taken less than thirty years ago.

24. Richmond, Surrey (Borough Council): Richmond Council seems to have very little interest in the fate of one of the most rewarding towns near London. Its latest lapse has been to approve the demolition of the eighteenth-century shop front of the famous Maids of Honour cake shop, which is to make way for yet another dress shop in a town which already has an unusually large number of them. Although this front is scheduled the Council 'feels it has insufficient power to prevent its replacement'—which is not true, as this could be included as a condition of planning consent—and it has apparently overlooked the obvious solution, of allowing the shop interior to be modernised while keeping the existing windows. In fact, a dress shop window would be far more likely to attract custom as the 'Maids of Honour Shop' than as one more bit

6

of plate glass and marble veneer. Richmond Council should think again before it is too late if they are not interested in character themselves they should remember that much of the town's prosperity depends on visitors who come to admire it, and who will soon find little left to admire.

25. Cavendish, Suffolk (Preservation Society and S.P.A.B.): The group of sixteenth-century thatched, lime-washed cottages which cluster round the church on Cavendish Green had been neglected for many years and were in danger of demolition, 7 and 8. They have now been bought by the Cavendish Preservation Society with the help of the Society for the Protection of Ancient Buildings, and will be restored and converted into five homes for elderly and needy people. A

7

8

unique corner of Suffolk will be saved and a new charity created. This could happen just as easily at Bottisham (AR, July, '57): Newmarket R.D.C. please note.

26. Queenborough, Isle of Sheppey (Municipal Corporation): Queenborough is a little-known Kent town with a great deal of character and an impressive wide street running down to the Medway estuary. The Corporation have done their best to keep the street intact in rebuilding, and now they are hoping to obtain a grant from the Ministry of Housing which will enable them to buy the six old houses opposite the church, whose present owners have allowed them to decay to such an extent that it was feared they would have to be demolished. The Council plan, if they can get some money, to modernise the inside of the houses so that people will be happy to live in them, and to preserve the exteriors, which they consider a valuable asset which it is their duty to save; if every town felt like this there would be little need for the Bureau to operate: in particular the nearby towns of Faversham and Milton Regis have magnificent town centres which are rotting away for lack of imaginative official action such as this.

SKILL

A MONTHLY REVIEW
OF BUILDING TECHNIQUES & INDUSTRIAL DESIGN

1 interiors
2 design review
3 techniques
4 the industry

1, *the teak entrance front on Cockspur Street, with specially designed lettering cut out, the white glass being lit from behind.*

1 INTERIORS

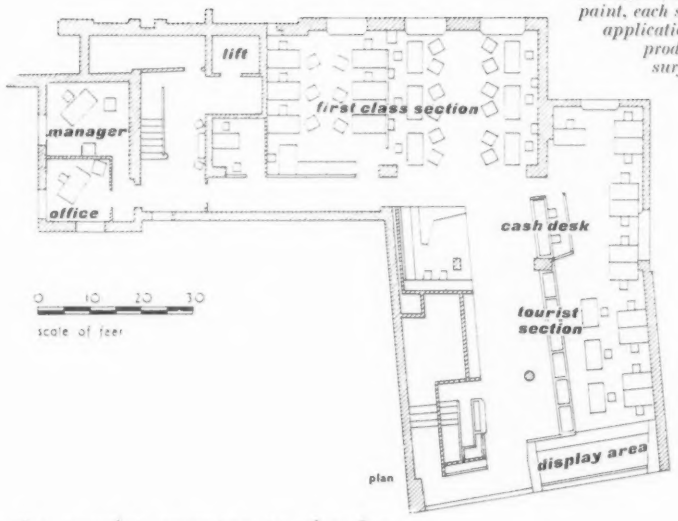
SHIPPING OFFICES, COCKSPUR STREET, S.W.1

Architect: John Wright

Number 26-27 Cockspur Street is the new booking office of the Orient Steam Navigation Co. Two distinct areas for first class and tourist travel respectively maintain the company's tradition that tourist passenger business is conducted over a counter, and those travelling first class are personally interviewed at desks. The plan is approxi-

2, the waiting space between the tourist and first class booking areas. The melamine plastic table surface was designed by Julia Omen; the painted lines on the walls are coachwork, i.e. numerous layers of paint, each sandpapered before the application of the next layer, to produce a perfectly smooth surface for the black line.

mately 'L' shaped, the top of the long leg of the 'L' being the entrance from the street; the main traffic goes through the front or tourist section, into the first class interview area at the rear. The street elevation has been made with traditional materials, chosen for their weathering qualities.



plan

The interior is designed like a ship, the very high ceiling being lowered and lighting coming from behind it. The room is long and low and the oblong 'windows' of light lead the eye down the length of the tourist counter to the far end. The walls are painted pale blue, plain except for some brass-framed Dufy lithographs fixed flush against them; there is no advertising or display of posters in the interior. In the tourist area all wood work is natural oak with a waxed finish; the counter and the desks

3, *looking towards the entrance and the tourist booking counters.*
4, *view from the entrance towards the first class area.*

3

4

behind have been designed together, the detail being a fine white inlaid line round each panel and an incised line around the top. The line motif on the furniture is carried through on some columns and one, glossy dark blue, is coach-painted in white and beige. The larger desks in the first class area are of the same design, but made of teak with a pull-out flap on the client side; all the writing surfaces are matt plastic. The chairs are Scandinavian teak and steel with padded seats. A waiting space between the two booking areas is defined by walls painted a khaki beige, and there are shaded lamps and a built-in writing shelf with banquettes.

5

5, *the entrance doors with ceramic handles and push pads.*

2 DESIGN REVIEW

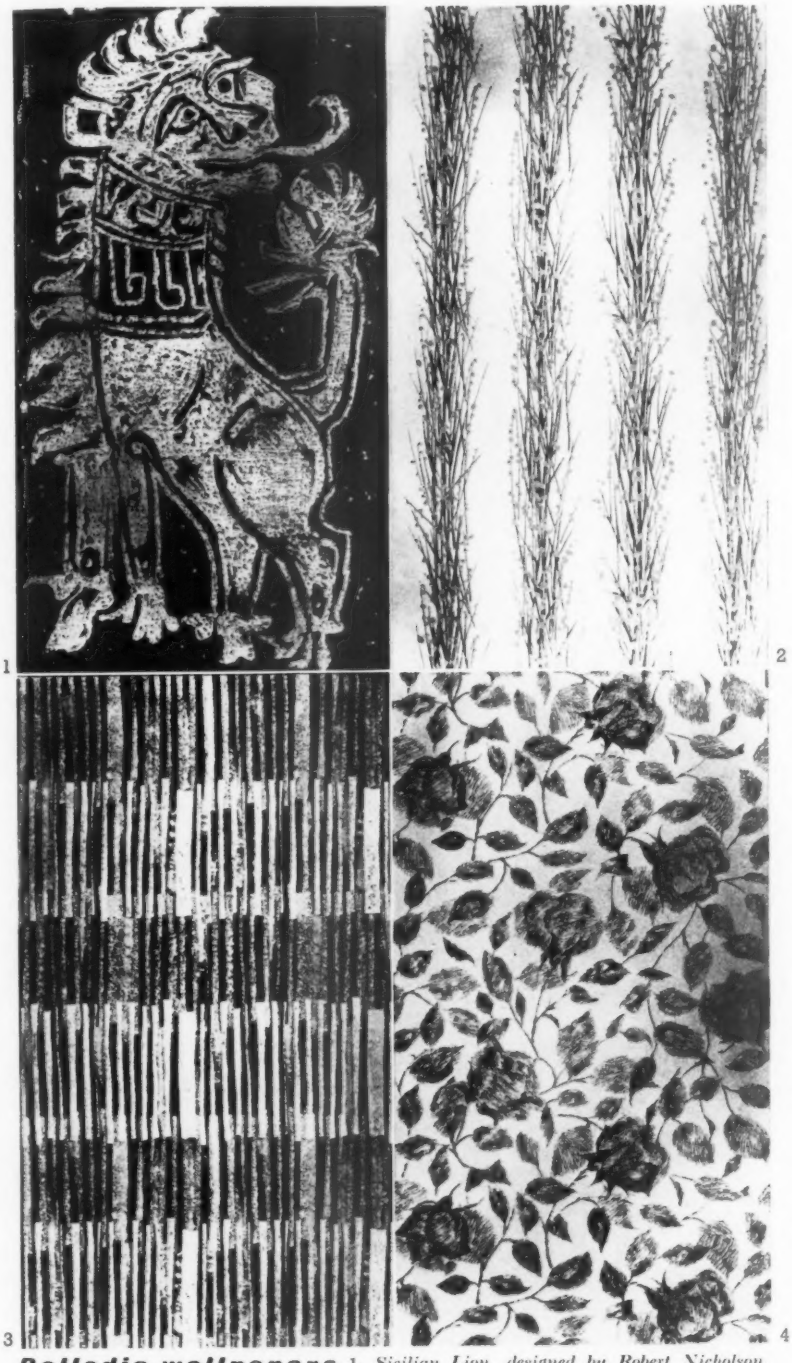
FABRICS AND WALLPAPERS—THREE RANGES

The trend in furnishing fabric design towards new treatments of natural motifs has gathered force in recent years. Even abstract patterns have assumed an irregularity of treatment that seems to derive more from the random mutations of nature, or the accidents of human endeavour, than the ideal perfections of geometry. It is a trend toward the picturesque: nature reordered but left with no obvious order imposed, sophisticated but human in scale.

To a greater or lesser extent this trend is reflected in most of the printed furnishing textiles from British firms and is finding expression also in Jacquard woven fabrics which for many years had little to contribute to a modern style. Photography as a tool for reproducing accurately the drawn design, or, in the recent experiments of Tibor Reich, as a technique for creating images which are valid in their own right as sources for pattern making, has contributed more than is perhaps realized. A designer is no longer content to see his deliberately varied line 'improved' and straightened by an anxious-to-please roller maker. At the same time, the camera remains a tool only, and in the decorative arts it is, perhaps, to Jackson Pollock and his followers that we owe our present day concern with the complex surface appearance of nature almost to the exclusion of its underlying architecture, which had been the preoccupation of Braque and Mondrian.

Palladio wallpapers

The second collection of 'Palladio' wallpapers by The Lightbown Aspinall Branch of the Wall Paper Manufacturers has brought a new strength to a range of designs of a type that previously had only existed in isolated examples. Although several straightforward geometric patterns are included, the character of the range as a whole is derived from those designs (either representational or abstract) which, in their scale and execution, evoke the bold growth and the varied textures of nature. Water colour on waxed paper, 1, a dragged brush, 2, chalk on a coarse surface, 3, photographically enlarged pen drawings, 4, have been the artists' means to break down the hard defining edges of flower and animal motifs



Palladio wallpapers 1, *Sicilian Lion, designed by Robert Nicholson. Four colourways, from 57s. 6d. per piece.* 2, *'Mimosa,' designed by Julius Frank. Four colourways, from 41s. 5d. per piece.* 3, *'Impasto,' designed by Audrey Levy. Three colourways, from 41s. 5d. per piece. (One colourway of this design was chosen from The Design Centre as one of the 12 'Designs of the Year' by an R.D.I. panel at the invitation of the C.o.I.D.)* 4, *'Phantom Rose' by Audrey Levy. Four colourways from 32s. 6d.*

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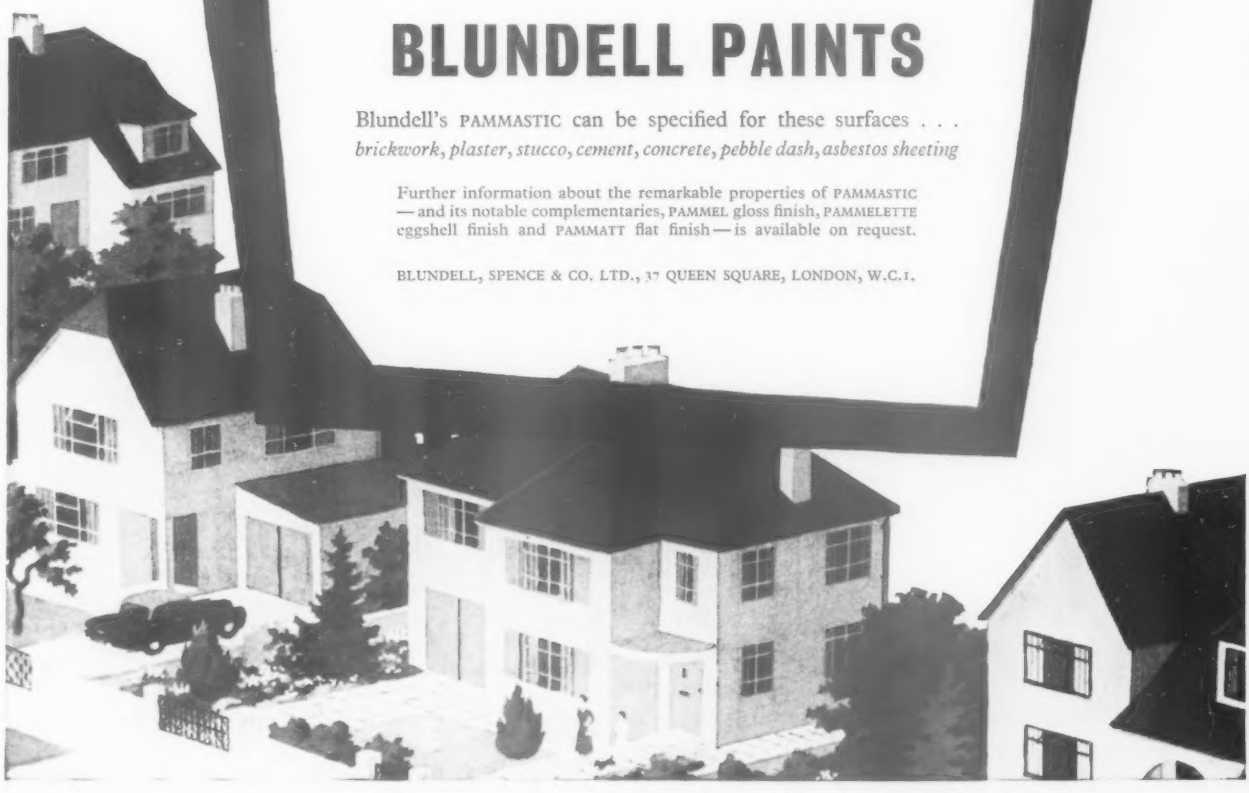

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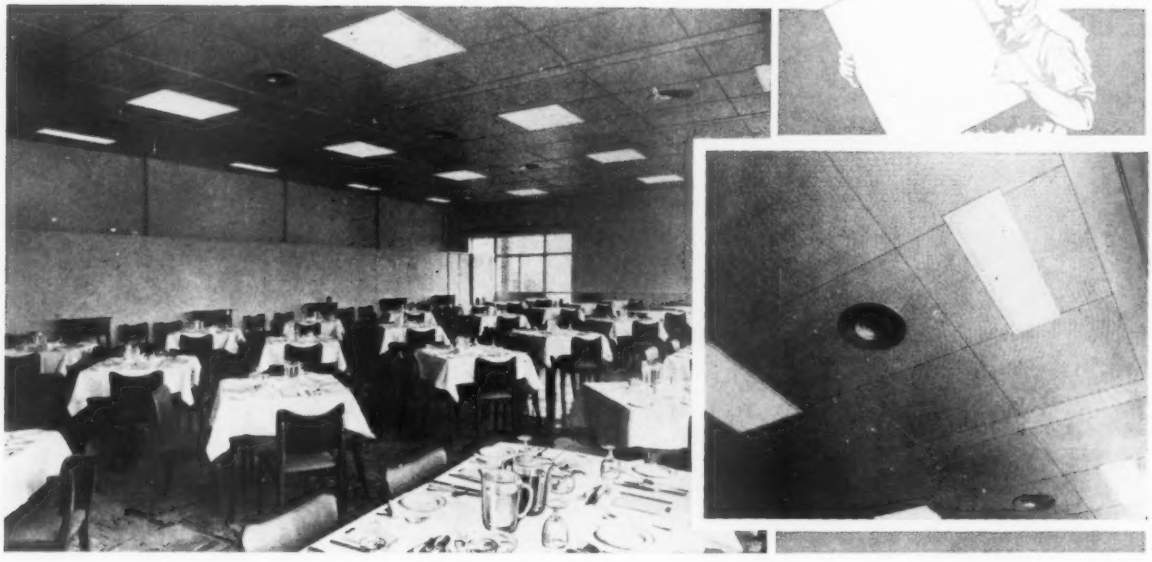

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nd to create visual interest within broad asses of tone. The silk screen technique omparatively new for paper printing) has ven the manufacturer's method of ensuring at the artists' designs were interpreted with ccuracy. This combination of imagination design and skill in reproduction has opened ut many new possibilities for wallpapers, oth in themselves and in their uses. The ndustry, which for some time has appeared o rest content with its production of small cale 'contemporary' patterns, has been given new direction with this range; but there re many householders and architects whose nthusiasm has cooled rapidly when the design f their choice had to be reconciled with their budget for the job. A serious effort should be made to bring the next collection into a more popularly acceptable price bracket.

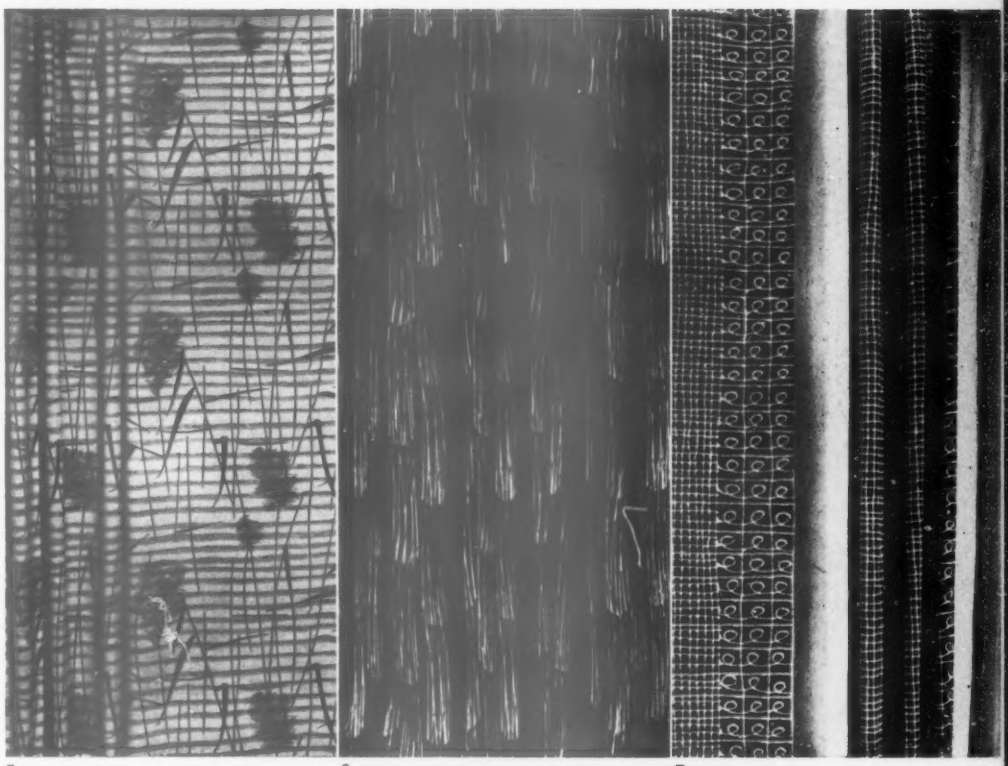
fabrics from Heals and Conrans

The current ranges of fabrics from Heal & Son and Conran Fabrics reveal a more modest interpretation of the naturalistic style in some, but not all, of the individual designs. Both ranges show the influence of previous work, though with Conran the derivation is from a field that is by no means confined to textiles.

For several years Heals have commissioned leading designers for both screen and roller printed fabrics as well as woven designs. The majority of these designs have maintained a fairly rigid geometric character linked with pure and imaginative colour harmonies. The latest range shows a significant departure from this style and an acceptance of the loose, informal abstractions from nature that can be seen in ranges from several other manufacturers. Here, however, quantity production with rollers has led to a restraint in execution which makes some of the designs perhaps more suitable for the average home than the more full-blooded, and expensive, patterns from rival firms.

Although originally a textile designer, Terence Conran shows in his new range of fabrics less affinity with his early work than with his more recent designs for furniture. The skilful use of photographic enlargements of engravings, and more particularly of micro-photographs, as decoration on cupboard doors or table tops, is strongly reflected in the choice of motifs for his new textiles. The intricate but informal network of cells in the 'Tree Section,' by Shirley Conran, is a particularly successful use of micro-photography to create an all-over effect which suggests nature not by representation of recognizable objects, but by the irregularity of natural growth. An enlarged engraving in 'Leaf,' and a drawn texture in 'Matrix' are further examples of visual complexity within a simple structure which are more original than the exercises in Swedish inspired geometry.

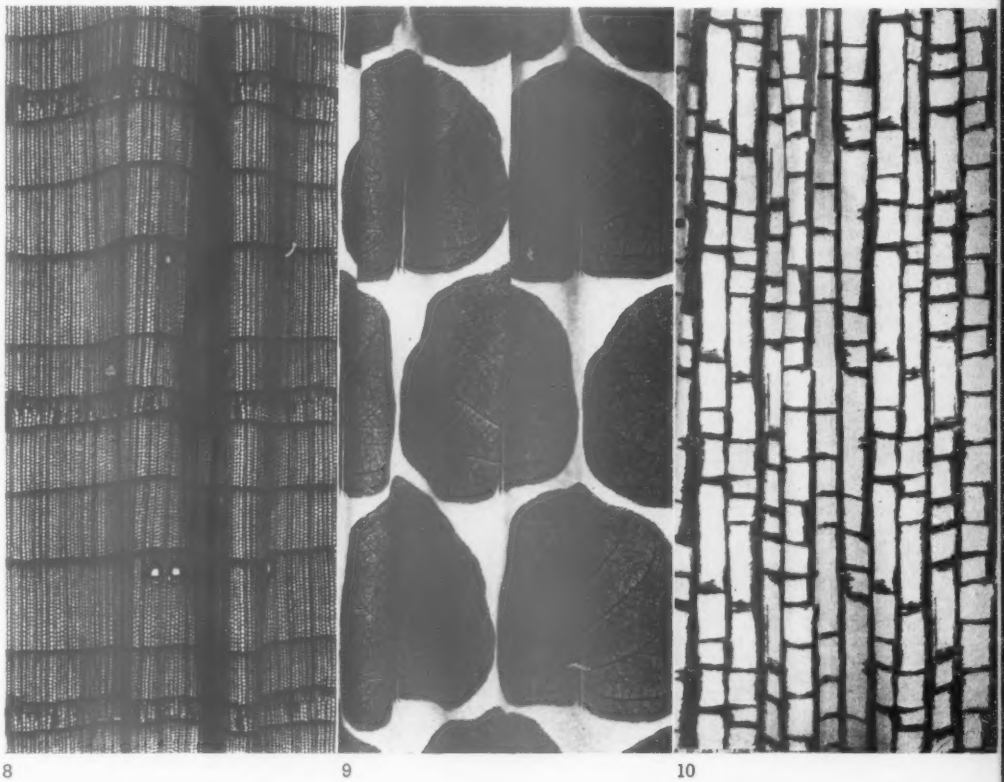
Heal fabrics



5 6 7

5, 'Tarn,' designed by Lucien Day. 6, 'Random,' designed by W. Herrmann. 7, 'Syncromesh,' designed by Michael O'Connell. These designs are printed on cotton, 48 inches wide, at 11s. 9d. per yard.

Conran fabrics



8 9 10

8, 'Tree Section,' designed by Shirley Conran, linen 22s. 9d. per yard. 9, 'Leaf,' designed by Terence Conran, linen 27s. 3d. per yard. 10, 'Matrix,' designed by Shirley Conran, linen 22s. 9d. per yard. These designs are also available in linen voile at 29s. 6d. per yard.

3 TECHNIQUES

DRAUGHT EXCLUSION AND WEATHERSTRIPPING

by Peter Whiteley

The realisation that about a third of the heat loss from a building is accountable to ventilation has caused new interest in the various methods whereby unauthorised ventilation can be stopped. This month, therefore, Peter Whiteley reviews the various methods of draughtproofing windows and doors now open to the English architect, taking into account both those which he can effect himself by careful detailing and those which involve the use of proprietary gadgets.

purpose

The most obvious benefits to be gained by draught proofing external doors and windows are those of prolonging the life of exposed joinery and metalwork due to the extra protection offered, and the improvement of general comfort conditions which follows from the reduction or elimination of *uncontrolled* ventilation, i.e. draughts. It will be useful to define this latter generalization by briefly reviewing the relevant aspects of heating research which has been done in recent years, mainly by BRS, and particularly in relation to housing. The twin goals of improved heating methods and reduced fuel consumption can be equated with reducing the heat loss from a building. In order to reduce heat loss from a building there are essentially three measures which can be taken (in this order of importance):

a. The insulation value of the ground floor, external walls and roof can be improved;
b. the ventilation rate through openings, i.e. flues, windows and doors can be controlled;
c. and double glazing can be provided to windows.

Measurements have been taken which show that heat loss by conduction (i.e. items **a** and **c** above) accounts for approximately 65 per cent of the total heat loss, and the remaining 35 per cent loss is heat loss by ventilation (i.e. item **b** above). It has also been demonstrated that by reducing the air change rate to a reasonable minimum of 1½ to 2 air changes/hour (Egerton Report recommendations), which can be achieved solely by means of well fittings doors and windows, this 35 per cent loss can be reduced by between one third and one half.

BRS therefore recommend that for new buildings (particularly housing) taking into account the cost and availability of materials and the limitations on capital expenditure, a reasonable standard of protection against heat loss will be provided if the U-values of the enclosing walls, floor, and ceiling conform to Housing Manual Standards (Technical Appendices, 1949) *and* if the external doors and windows are well fitting and draught proof.

effectiveness and cost

What should be two quite separate issues, first the relative effectiveness of the various methods or patent systems of draught proofing available, and second the initial cost, tend at the present time to be inextricably mixed; thus it is not possible for the architect to say that **a** method of draught proofing is 50 per cent effective and costs so much, and that **b** method is 100 per cent effective and costs so much. This is regrettable and is due to a lack of reliable data on the effectiveness of each method; manufacturers' catalogues in this field most frequently consist of extensive claims unsupported by any figures arrived at by an agreed system of measurement. So that in the absence of convincing and reliable data as to effectiveness the choice of method at the moment is probably made on first cost (or personal recommendation). But even in the matter of cost, comparative overall prices are difficult to assess due to the mixture of methods: e.g. at one extreme a system which is almost entirely dependent on profiling of joinery and the cost of which is therefore hidden in with the cost of the joinery; and a system which is mainly applied equipment, the cost of which is relatively easy to assess but which may appear artificially high.

If it is assumed that it is desirable that most types of building should be efficiently draught proofed, then it is probably cheaper in first and maintenance costs to design for draught proofing which relies for its effect primarily on the profiling of the sections with the addition of a minimum of applied 'equipment.' Care must be taken in both design and supervision to ensure that frames are adequately and correctly bedded into their surrounds, otherwise they may be a source of draughts—particularly around jambs and heads. With reference to openings in brickwork the relevant code of practice recommends that 'all openings should be rebated if no other weathercheck is intended.' In considering draught and weather proofing which is mainly a matter of joinery sections, it must be taken into account that timber moves seasonally—even if correctly primed and finished; so that although doors and windows may be designed and manufactured to be initially relatively draught proof—additional measures may have to be taken at a later date to improve their performance. On the other hand most 'equipment' has a limited life before replacement becomes necessary, either due to the nature of the material—felt, rubber, plastic, are all perishable, or due to mechanical damage or wear.

There is a proliferation of devices for the draught proofing of internal doors—a characteristically English approach to the problem of draughts, which is, to treat each room as a separate volume with its own openings to be draught proofed. This approach probably springs from an attitude to economy which requires that each room in turn shall be draught proofed, beginning with the living room, until relative comfort is achieved. It will probably be found that if external doors and windows are well fitting and draught proof and if bedrooms are vented into the roof space, then the draught proofing of internal doors will be largely unnecessary, except in special circumstances.

But efficient draught proofing and weather stripping requires more thought and time given to construction details than is customary in English practice.

Details of cost are given, where available, under individual items in the examples illustrated.

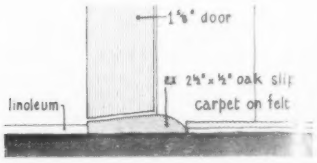
The material will be divided into the following categories:

(*a*) internal doors;
(*b*) external doors;
(*c*) windows.

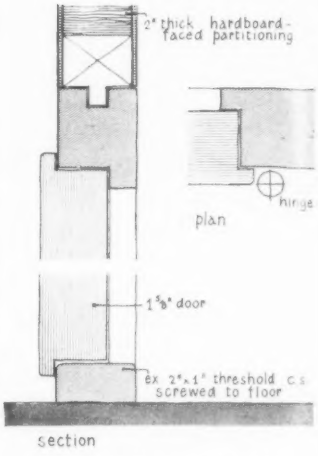
(a) internal doors

The simplest method of reducing draughts around internal doors is the traditional one of providing a raised threshold; either chamfered to match a chamfer on the bottom edge of the door, 1, rebated to fit a system of rebates on the door: variations on this method are still standard practice in Sweden, 2 and 3. In addition it helps to have correctly fitted, good quality ironmongery and a substantial rebate on the stops of the frame—a minimum of ⅝ in. One advantage of the fixed threshold is that differences in floor level and finish cause no difficulty in use. There are at least two non-timber types of fixed threshold; the first is the *Unda-Door* plastic foam threshold by Sealdraught Ltd., which consists of rounded section expanded plastic strip clamped into a metal carrier, which is screwed to the floor in such a position that when closed the door contacts the rounded top of the resilient foam and so effects a draught-proof seal. The price for this is 12s. 6d. for a 2 ft. 6 in. width to 13s. 9d. for a 3 ft. door width. A similar type, but rather more sub-

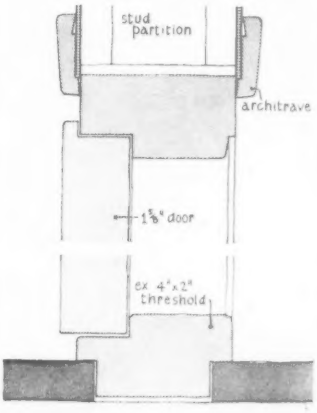
[continued on page 143



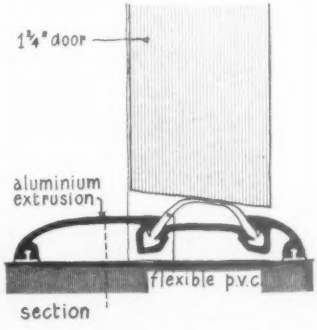
1, *traditional English detail of internal door threshold.*



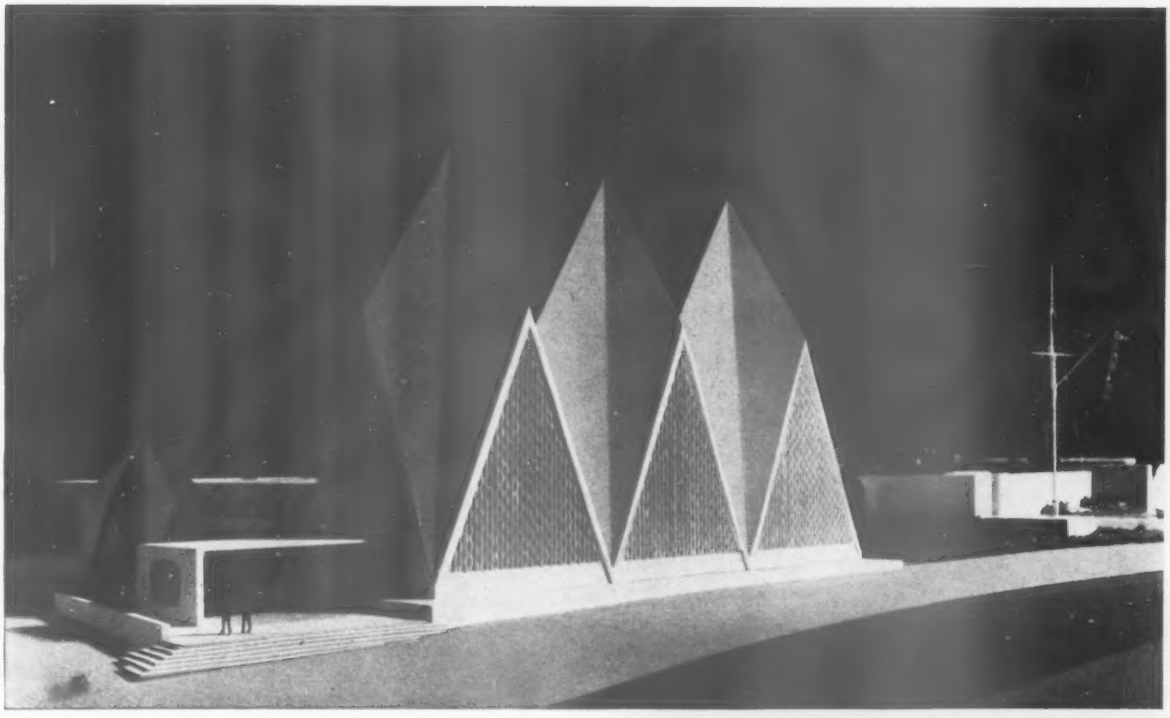
2, *internal threshold in experimental flats at Gothenburg by William-Olsson, Grotedom & Carlsson.*



3, *internal threshold in prefabricated houses designed and manufactured by member firms of Aktiebolaget Svenska Trahus.*



4, *'Duraflex' threshold by Adams & Benson. Price £1 16s. 9d. for 3 ft. width (supplied only).*



All U.K. buildings at Brussels Exhibition

At the 1958 World Exhibition at Brussels the British Government Pavilion and the British Industries Pavilion will occupy approximately five acres.

The Architects for the Government Pavilion are Messrs. Howard V. Lobb & Partners, who are also the co-ordinating Architects for the whole of the U.K. site.
The Architects for the British Industries Pavilion are Messrs. Edward D. Mills & Partners, and the Consulting Engineer for both Pavilions is Mr. Felix J. Samuely, B.Sc., M.I.C.E.

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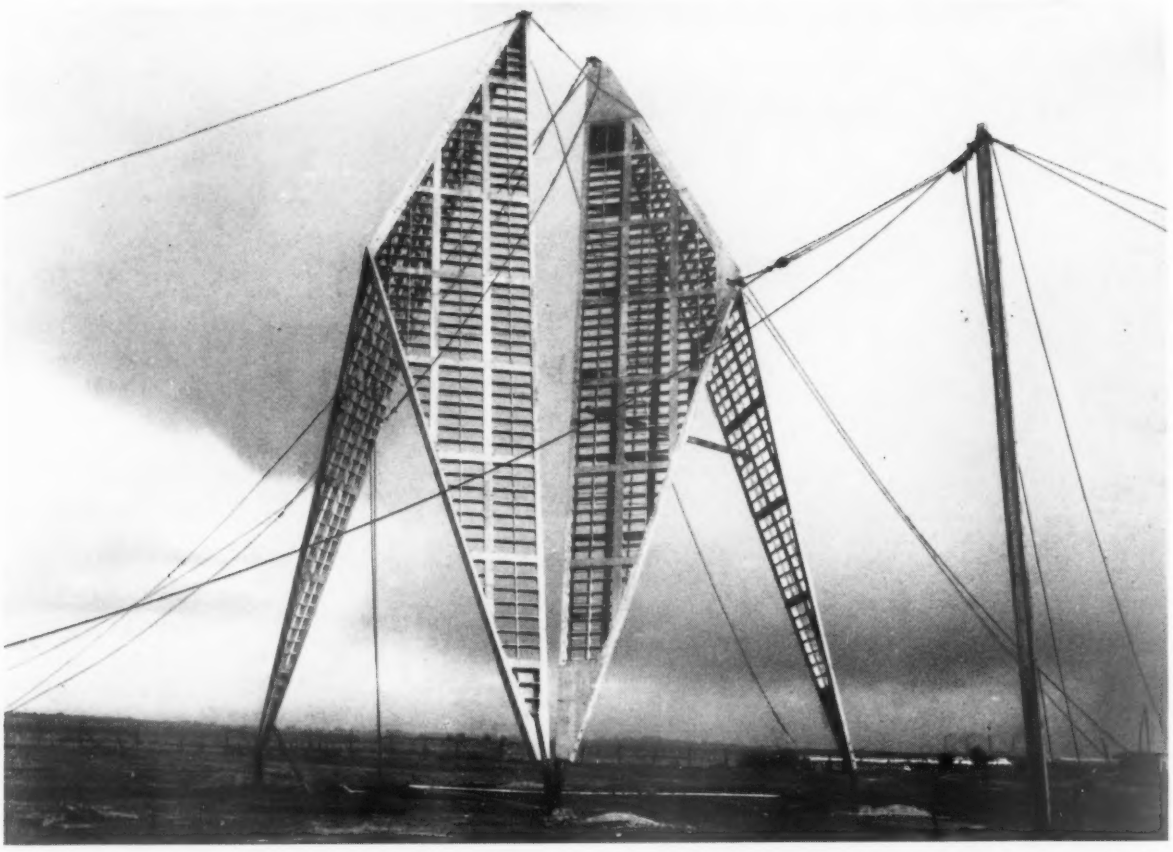


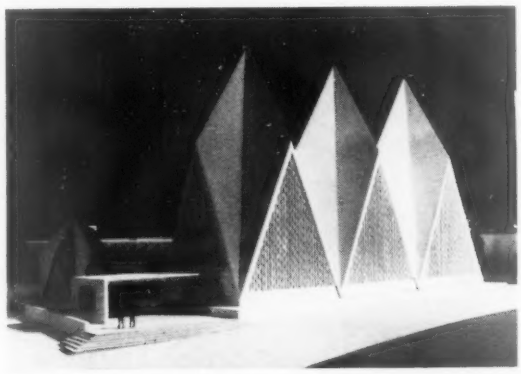
Crystalline Hall • British Government Pavilion • Brussels 1958

One of the most striking features of the Brussels International Exhibition in 1958 will be the Crystalline Hall—entrance to the British Government Pavilion—with its three great crystal-shaped spires 70 feet high. *Architects: Howard V. Lobb & Partners, F/F.R.I.B.A. (Consulting Engineer: Felix J. Samuely, B.Sc.(Eng.), M.I.C.E., M.I.Struct.E.).* These unusual structures are being prefabricated by Rainham Timber Engineering Co. Ltd.

Shown above is a trial assembly of four "egg-crate" panels, eight of which form one spire. The perimeter structural members are of Glued Laminated Timber. The difficult job of precision machining these large pieces (74 feet long) for a perfect fit was accomplished with complete success.

Other R.T.E. contributions to this Pavilion are the outside wall coverings of the Hall of Technology—a series of four-sided flat pyramids made of plywood—and the V.I.P. Hall which is a smaller construction similar to the Crystalline Hall.

R.T.E. are also responsible for the special Timber Curtain Walling incorporated in the British Industries Pavilion at the Exhibition, which will give the Pavilion four glass walls of approximately 60,000 sq. ft.



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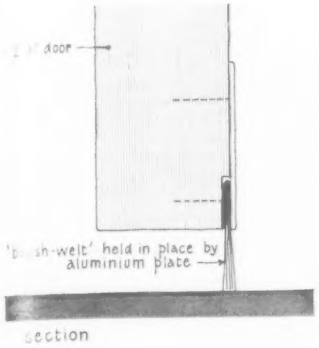
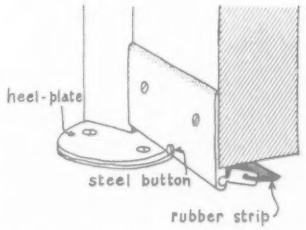
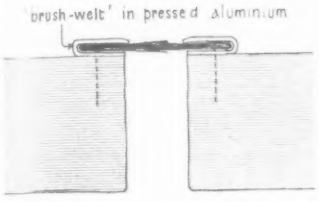
internal doors—(cont.)

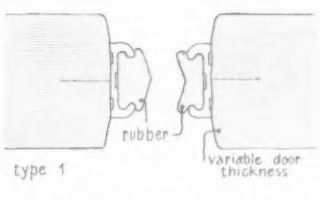


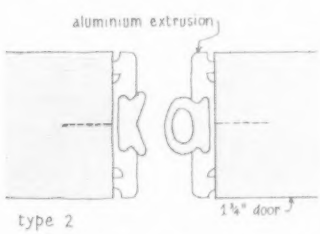


7. 'Fix' *internal door seal No. 340 by Tonan Trading Co. The clearance between the bottom edge of the door and the floor should be 20 mm. or ¾ in. Price £3 for 3 ft. width (supply only).*



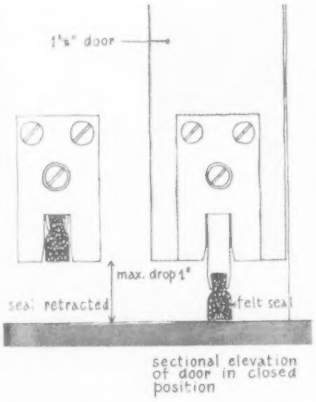
5. *'Brush-Welt' by Kleen-eeze Brush Co. Price 2s. 0½d. per ft. 'Kez-strip' (not shown), price 1s. 11½d. per ft.*



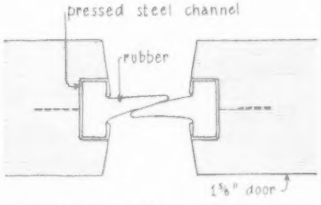


plans of meeting stiles of sliding doors

8. *two types of sliding door buffer strip and draught excluder by Metal Mouldings. Aluminium extrusion supplied in 12 ft. lengths only. Price: upper one 17s. 0d. for two meeting edges of pair of 6 ft. 9 in. doors (supply only); lower one £1 12s. 6d. (supply only) for same quantity.*



6. *'In-door-seal' by Chamberlin Weatherstrips. Price approx. £3 for 3 ft. width (supplied and fixed).*



plan of meeting stiles of double swing doors

9. *swing door draught excluder by Metal Mouldings. Metal supplied in 12 ft. lengths only. Price 12s. 3d. for pair of meeting stiles of two 6 ft. 9 in. doors.*

continued from page 142]

stantially made than the first, is the PVC in aluminium threshold, 4, which may be used to seal the thresholds of both internal and external doors. The *Duraflex* threshold, which has been in use in the USA for a number of years, consists of a flexible PVC strip arched into a base of extruded aluminium and is effective by means of a 'spring action' against the bottom of the door. The manufacturers claim that it is also rain and snow proof when used externally, but due to the rounded profiles of the PVC and aluminium and the action of the door it is difficult to see how this can be so.

Another material which is being increasingly used as a draught and dust excluder, particularly in industrial and vehicle applications where other materials or methods are inapplicable, is continuous brush strip; the bristles being held together by either a sewn canvas backing '*Brush-Welt*' or within a continuous aluminium pressing '*Kez-strip*,' 5.

The following two examples are of the vertical movable seal type attached to the bottom of the door, the seal being raised on opening, and lowered on closing the door. Both types can be face fixed or recessed into the thickness of the door; in the first example, 6, the movable seal is a strip of hard felt, and in the second by British Hermeseal Ltd. the movable seal is an extruded rubber strip.

Another movable seal type of which there are three examples is where the seal is a door-width hinged strip (of a variety of materials) which is raised around a hinge on opening the door. The first of these, the *Sikrex* Newfour draught bar by Neilson & Barclay Ltd., is a face fixed construction of hard aluminium alloy or brass in which the seal is a purely mechanical one of metal to metal. The sealing strip, which is hinged within a metal slot, is fixed to the door and operates by gravity against a lipped metal threshold; unfortunately the whole device—threshold and movable seal, both of which are still fully visible when the door is closed—looks rather unsightly in use. The second of this type, the *Auto-Seal* by Sealdraught Ltd., does not involve the use of a threshold, but consists of a hinged rubber blade fixed by a continuous hinge to a plate which in turn is fixed to the underside of the door; a small stud on the opening edge of the door at floor level engages in a catch set into the door frame and lowers the seal when the door is closed by means of two springs. Price of internal drop seal (including fixing) is £4 15s. 0d. for 3 ft. width. The third example, 7, is a Swedish pattern fixed to the face of the door (which consequently also acts as a kicking plate) and consisting of two brass profiles of which the visible one is nickel plated, and into the other movable member is fixed the rubber strip. The brass profile has a steel button which slides up the wedge-shaped 'heel plate' as the door is opened, which lifts the movable section clear of the floor. The reverse action is by gravity operating the weight of the brass and rubber seal.

The familiar spring phosphor-bronze strips may also be used around the edges of internal doors—as with external doors and windows (see 24), though there is always the danger of mechanical damage to the floor strip perhaps even more so on internal doors where a slight threshold obstruction is more nuisance than a substantial one.

As an aid to some of the previous methods and for use on existing internal doors there are the foamed rectangular strips, the first of which is *Stick-a-seal* self-adhesive plastic foam by Sealdraught Ltd., which is obtainable in thicknesses ⅛ in., $\frac{5}{16}$ in. and ¼ in., and in widths from ⅜ in. to 4 in., price 5s. 3d. for 20 ft. coil of ¼ in. by ⅜ in. section, a second type is an adhesived sponge rubber sealing strip—*Stika-strip* by Howard Clayton-Wright Ltd. This is sealed against water or moisture absorption and will stick (on moistening with petrol) to most materials and surfaces; this is also available in many rectangular and square sections from ⅛ in. to ¾ in. thick and $\frac{5}{16}$ in. to 1½ in. wide. Price 6s. for 16 ft. coil of ⅛ in. by ½ in. section.

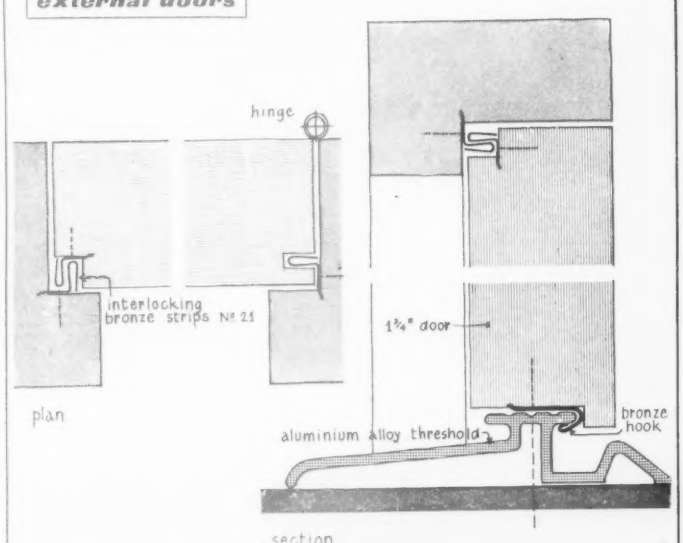
One firm supply draught excluder and silencer strips for sliding doors and also for swing doors. The first, 8, is a sliding door buffer strip and draught excluder of stainless steel or aluminium extrusions containing a variety of rubber profiles to suit different conditions. The second, 9, is a swing door draught excluder and silencer the operative parts of which are rubber profiles set into pressed steel channel sections which are screwed into a recess within the thickness of the door.

(b) external doors

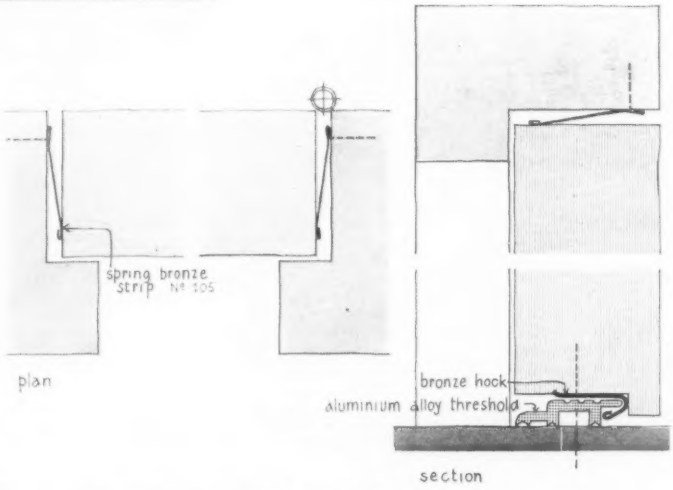
The traditional methods of detailing external doors, particularly at the threshold, where the effectiveness is entirely a matter of joinery profiling, are not altogether successful from a draught-proofing and weathering point of view. The problems to be solved are more difficult in the case of inward opening doors which are the custom in English domestic buildings, coupled with a singular unconcern for side and head frame details which are generally just a single rebated stop as on an interior door. It would seem that to be draught proof the side and head members of an external door frame need to be as carefully detailed as the threshold section; or to put it another way, that the detailing of doors requires as much care as the detailing of windows if both are to be weatherproof.

The first two examples are of all-metal sections added to simple joinery; 10 is a concealed interlocking system in zinc or bronze strip for inward opening doors and a cill which

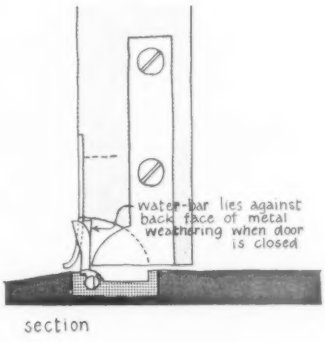
external doors

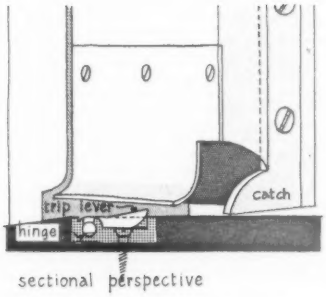


10. *'Equipment No. 800' by Chamberlin Weatherstrips. Price approx. £5 6s. 0d. for complete equipment for a 6 ft. 9 in. by 3 ft. door (supplied and fixed).*

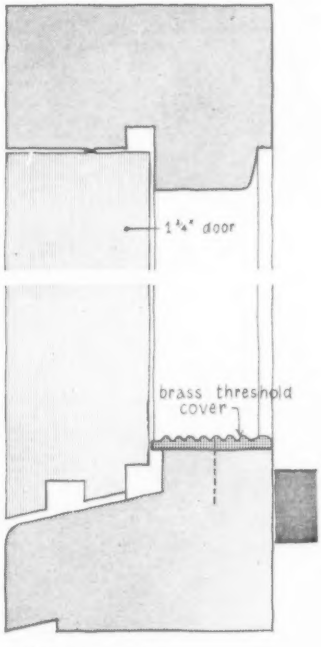


11, 'Equipment No. 800-A' *by Chamberlin. Price approx. £4 16s. 0d. for complete equipment for a 6 ft. 9 in. by 3 ft. door (supplied and fixed).*

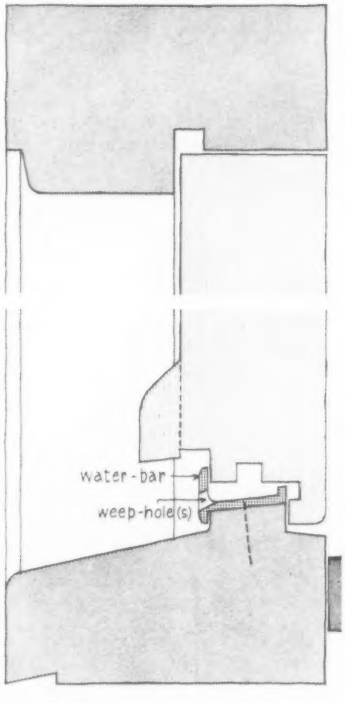




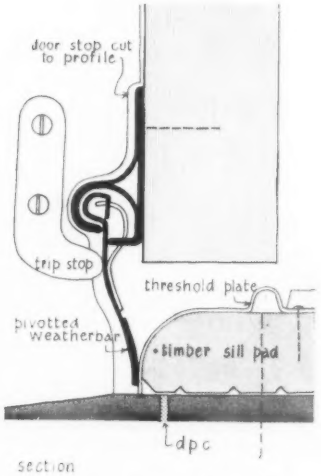
14, 'Water Bar' *B4213 (shown) for flush thresholds by James Gibbons. Price £4 2s. 6d. for 3 ft. width (supplied only). Also B4213A for raised thresholds, price £4 7s. 6d. for 3 ft. width. Both of these types are available for use with inward opening or outward opening doors.*



12, 'Fix' *internal brass threshold cover No. 480 by Tamo Trading Co. Price 4s. 6d. per ft. (supplied only).*



13, 'Fix' *aluminium water-bar No. 350. Price 3s. 3d. per ft. (supplied only).*



15, 'Sikkar' *weatherbar Type No. 1 by Neilson & Barclay. Price approx. £1 for 3 ft. width (supplied only).*

is a simple mechanical joint of a toughened bronze hook fitting over a threshold section of aluminium alloy (or manganese bronze) appropriately shaped to receive it when the door is closed. This system is more appropriately fitted to new joinery. Another type by the same manufacturer, 11, is that of spring bronze sections fitted to jambs and head of the frame and a simple hook threshold; this system is adaptable to existing joinery.

An imported Swedish type of brass threshold cover is illustrated in 12; it is intended for use with single or double casement doors opening outwards with a suitable system of rebated and grooved stops. The front edge of the threshold acts as a stop for the door, and also when the door is shut as a draught excluder. Another type by the same firm, 13, is an extruded hard aluminium alloy water bar for use with inward opening doors and casement windows (see also 17); it is generally screw fixed to a hardwood cill and at intervals along its length is provided with a number of weepholes to allow water to escape.

There are a number of types of threshold seal which rely for their effect on a hinged action. The first, 14, is a bronze hinged water bar operated by an automatic catch on the lock side of the door at threshold level, obtainable for flush or raised thresholds, and for inward or outward opening doors. This is a most suitable type for an exposed situation where there is much traffic and consequently where a cumbersome raised threshold would be dangerous. (It is also beautifully made and finished.) Another type of movable water bar threshold seal is the *Sikkar*, 15, weather bar in four types. This is made from *Dalzo* weather resisting steel and is gravity operated; it consists of a hinge bar assembly (consisting of a fixed plate and a hinged plate) which is screwed to the bottom of the door, a threshold plate, and a trip stop which pushes the hinged plate down against the threshold when the door is closed.

(c) windows

The most common traditional arrangement, aimed at draught-proofing casement windows, is probably that of fitting the sashes proud of the frame and giving them a lip to cover the necessary clearance be-

[continued on page 145

Furnishing your office suite, your board and conference rooms—this is a task for experts alone . . . and Harrods *are* experts. They have planned and carried out the decor of many famous concerns. Years of extensive experience and the vast resources available ensure that a setting evolved by Harrods will typify modern design at its best. Why not call in the Contract Department and discuss your ideas in full?

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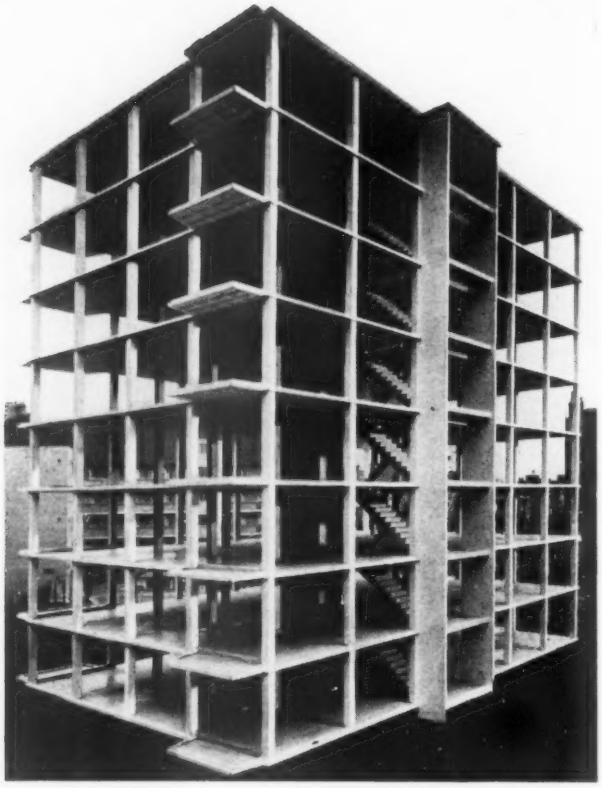
The Plate System by Truscon



One of the finished blocks of Council Flats, Millpool Hill Estate, Birmingham (A. G. Sheppard Fidler, F.R.I.B.A., City Architect) compared with the model of its Plate structure.

The Plate System provides a concrete frame without beams. This is done simply by designing the beams away. The Plate System is at its best with a regular grid, yet it is often the only reasonable solution when columns are irregularly placed. The Plate System does not compress an architect's work within the framework of a stereotyped plan, nor does it attempt to do his work for him. It is more than a system of design, for combined with careful planning and the use of cranes and precast components it has become a system of construction. It is cheap in cost but not in appearance. With good organisation it can be built very rapidly.

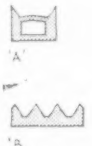
The outstanding application of the Plate System is for flats and offices; and recent developments have widened its scope to industrial work.

The Trussed Concrete Steel Company Limited, 35–41 Lower Marsh, London, SE.1: Telephone WATerloo 6922

continued from page 144]

tween the two members, generally referred to as 'storm proofing' (variations according to the manufacturer), 15. Designers and manufacturers of good quality wood windows, particularly those in the Scandinavian countries, generally agree that it is virtually impossible to obtain draught-proof windows by relying on this or any similar system of single or double rebates; most of them are in favour of depending on one of the rebates only for draught proofing, leaving the other slightly open and adding one large square groove where the inrushing air can expand and thus help to check its speed. Experiments by the Swedish State Building Research establishment indicate the value of this groove (which must be square in section) to prevent driving rain from entering. The rebate designed for a close fit will depend for its efficiency on the hardware used to hold the sash into the frame, but with the need to allow adequate room for paint (or clear finish) and also for the moisture movement of the wood, it is desirable to fix into this rebate a continuous flexible strip to seal the gap completely when the sash is shut, 17, 18 and 19.

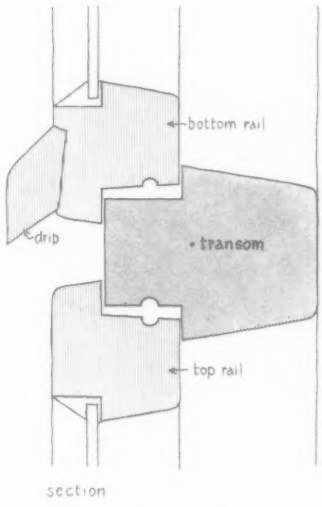
Gaskets of rubber, neoprene (synthetic rubber), felt, plastics, and woven woollen cords are the most common alternatives. In Scandinavian experience it has been found that some of the fabric, rubber, and plastic gaskets have not stood up well to wear and weather, so that now the two most generally preferred sealing strip materials are good quality woollen cords (it is important that they should be of the correct dimension for the job) and a newer extruded neoprene obtainable in two alternative sections.



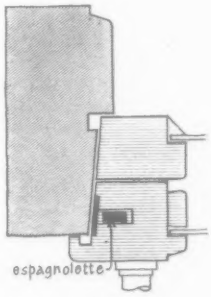
20. *'Fix' weather sealing strips of neoprene; A, No. 768 intended for a pre-cut groove, and B, No. 770 for surface fixing. Each approx. 6d. per foot.*

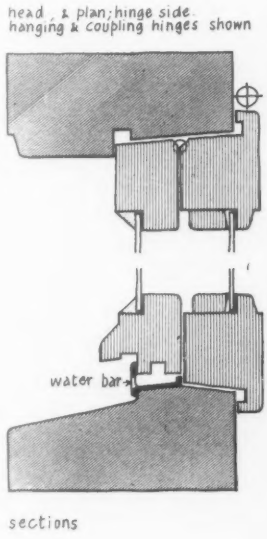
20A is intended to be fixed into a pre-cut groove in the sash, and 20B is for surface fixing to new or existing window sections. In the case of woollen cord, it should be remembered that the cord to retain its springiness must not be covered with paint, in fact it should normally be fixed into its rebate after all painting has been done (and similarly again at each re-painting). The first, 21, is an interlocking system for outward opening casements, the equipment being concealed within rebates in the sashes; it allows for moisture movement of the sash or frame, and as the equipment does not interfere with the swinging action of the sash, the windows are consequently easy to operate. Another system, 22, is an exposed interlocking one for inward opening casements which is equally suitable for fitting to existing unprotected windows. Experience has shown that if there is no objection to the metal sections being visible this system is effective in extremely exposed situations. The third example, 23, for timber windows is a simple system of metal loops sliding in grooves in the sashes, for sliding sash windows in which the balances – tapes or weights – are housed within the sash stiles. 24 shows cushion bronze equipment fitted to standard metal casements.

windows

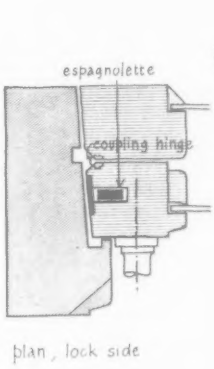


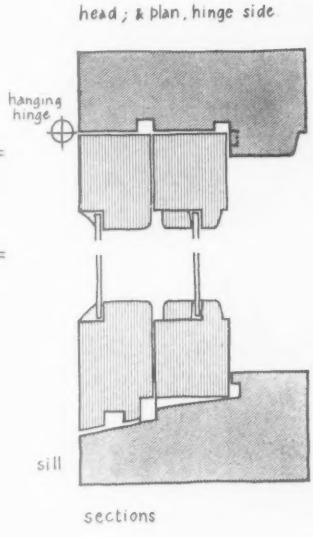
16. *vertical section through transom with opening lights of typical E.J.M.A. type casement window.*



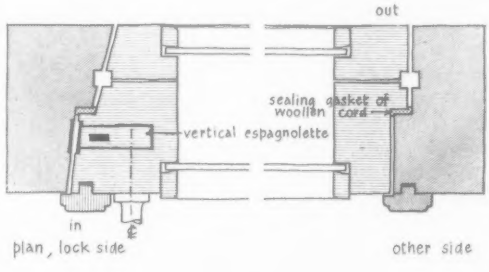


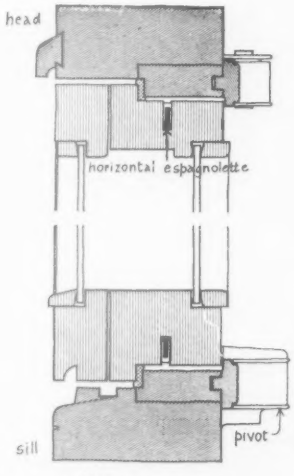
17. *double-glazed inward opening, casement window made to Swedish designs and employing 'Fix' hardware, by Tomo Trading Co.*





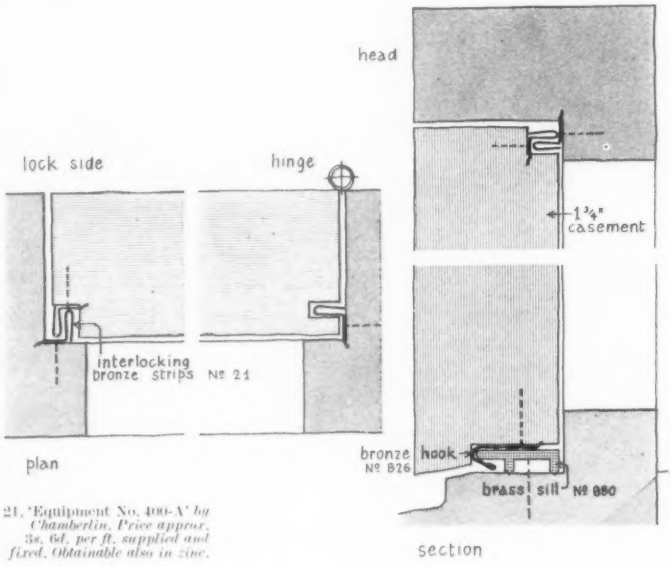
18. *double-glazed outward opening, casement window by Tomo Trading Co.*



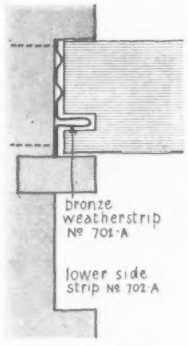


19. *vertically pivoted double glazed window by 'Reventa' made under licence by C. W. Norris Ltd.*

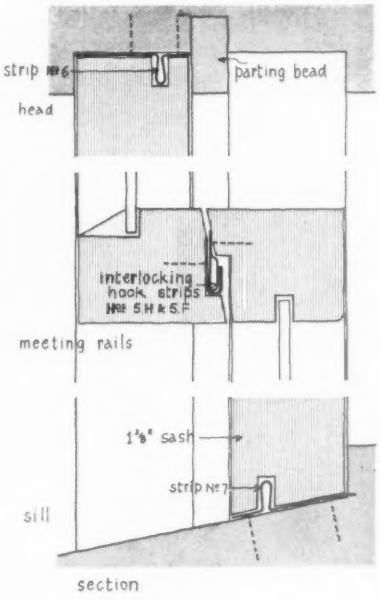
windows—(cont.)

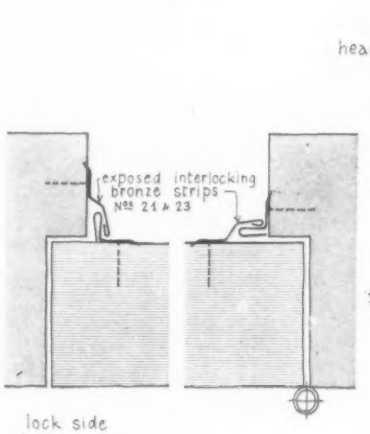


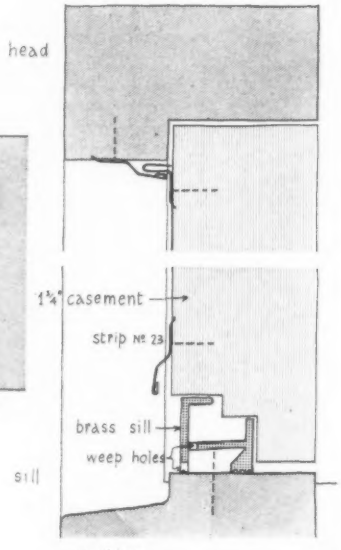
21. 'Equipment No. 400-A' *by Chamberlin. Price approx. 3s. 6d. per ft. supplied and fixed. Obtainable also in zinc.*



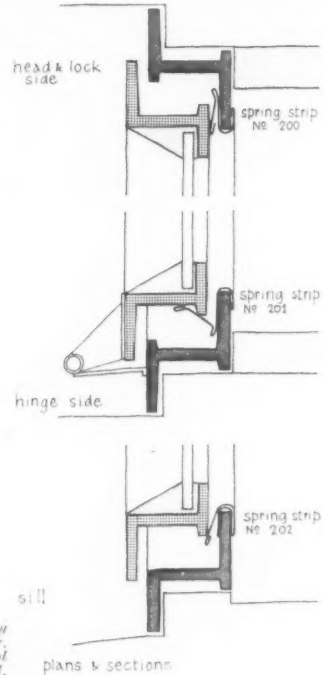
23. 'Equipment No. 100' *by Chamberlin. Price approx. 4s. 3d. per ft. supplied and fixed. Obtainable also in zinc.*







22. 'Equipment No. 300-A' *by Chamberlin. Price approx. 3s. 6d. per ft. supplied and fixed. Obtainable also in zinc.*



24. 'Equipment No. 700-A' *by Chamberlin. Price approx. 4s. 6d. per ft. supplied and fixed.*

If the windows to which this equipment is to be fitted are already moderately tight-fitting the spring compressive action of the cushion bronze will make them extremely difficult to operate.

manufacturers

Aktiebolaget Svenska Trahus, Birger Jarlsgatan 27, Stockholm.
Sealdraught Ltd., Chandos House, Buckingham Gate, S.W.1.
Kleen-e-ze Brush Co. Ltd. (Industrial Division), Hanham, Bristol.
Chamberlin Weatherstrips Ltd., 436 Hook Road, Chessington, Surrey.
British Hermeseal Ltd., 4 Park Lane, W.1.
Tomo Trading Co. (Fix), Packet Boat Dock, Cowley Peachey, Middlesex.
Metal Mouldings Ltd., Park Royal Road, N.W.10.
James Gibbons Ltd., 74 Southampton Row, W.C.1.
C. W. Norris Ltd. (Reventa windows), Farnworth, near Bolton, Lancs.
Neilson & Barclay Ltd., Laighcartside Street, Johnstone, Renfrewshire.
Adams & Benson Ltd. (Duratlex division), Oldbury Road, Albion, West Bromwich, Staffs.
Howard Clayton-Wright Ltd., Wellesbourne, Warwick.
Draftsele Ltd., 44 Dean Street, Newcastle-on-Tyne.

4 THE INDUSTRY

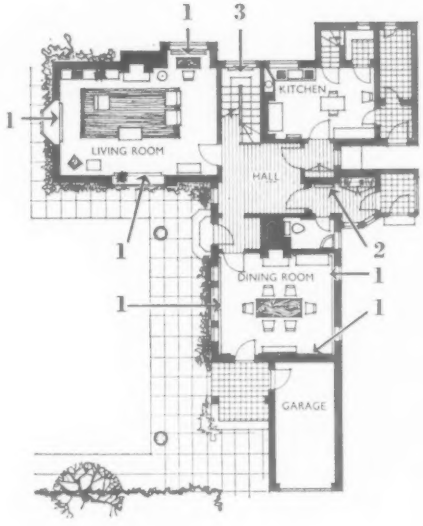
Fire Protection of Large Factories

One of the effects of the Jaguar fire on what we may call 'professional fire-fighting quarters' has been to direct attention to the problem of fire limitation in large factories. The dream of architects and industrialists alike of vast uninterrupted floor areas presents a new and exceptional fire hazard which requires a new approach to fire-fighting. The problem is how to contain fires within these wall-less spaces and, having contained them, how to prevent the build-up of smoke (which hinders fire-fighting) and the build-up of heat (which risks an explosion). In order to investigate this problem and to test their solutions for it, two manufacturers, Cape Building Products Ltd., and Colt Ventilation Ltd., carried out a test on May 28 last on a specially erected building representing in dimensions and structure three bays of a typical single-storey factory. The solution proposed was to install (*a*) an asbestos fire curtain to contain the fire and shield adjoining spaces from the heat

This 3-bedroomed house near Tunbridge Wells was built in the 1930's. It has a fine view across the Weald of Kent. The up-to-date heating system is oil-fired, with fuel supplied by Shell-Mex and B.P. Ltd.

A HOUSE WITH MODERN HEATING

and a lovely view



1. *Skirting heating*
2. *Concealed radiator in hall*
3. *Boiler room with outside access below stairs.*

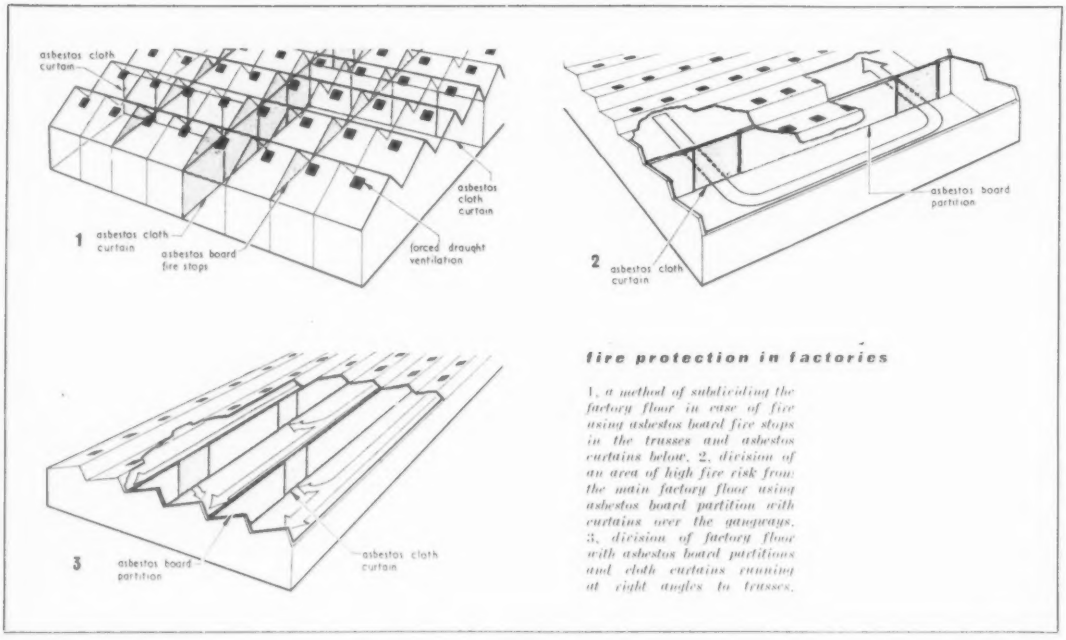
A DELIGHTFUL FEATURE of this attractive house is its beautiful situation. Built in the early 1930's, it is over four hundred feet above sea level and has an open view of over seven miles to the North across the Weald of Kent.

In 1954 the house was purchased by its present owner who, before moving in, added to its comfort and amenity by installing central heating. Lounge, dining room and landing were fitted with Crane skirting heating, while five radiators were installed in other rooms. An oil-fired boiler, situated in a small separate room below the stairs, supplies the hot water requirements as well as the central heating system.

Oil-fired heating is supremely clean, efficient and labour-saving; and oil fuel bought in bulk is surprisingly economical. It is suitable for blocks of flats and public buildings and, increasingly, it is being installed in houses of every type and size.

From hot water supply in the smaller home to full central heating in larger buildings there are now available special oil-fired units designed for every requirement. Two kinds of oil are supplied for heating – Shell Domestic Fuel Oil for the larger installations and BP Domesticol, the new fuel specially developed for the smaller boilers with vaporising burners.

If you are designing or modifying almost any kind of building, public or private, you may well find it worth your while to make provision for this modern, convenient heating method. For further information write to Shell-Mex and B.P. Ltd., Fuel Oil Dept. FD1J, Shell-Mex House, Strand, W.C.2. This, naturally, will not place you under any obligation.



fire protection in factories

1, a method of subdividing the factory floor in case of fire using asbestos board fire stops in the trusses and asbestos curtains below. 2, division of an area of high fire risk from the main factory floor using asbestos board partition with curtains over the gangways. 3, division of factory floor with asbestos board partitions and cloth curtains running at right angles to trusses.

continued from page 146]

generated, and (*b*) Colt dual-purpose fusible link heat and smoke ventilators to eject smoke (and thence heat also) through the roof. The building itself was lined throughout with Asbestolux and was sheeted partly with standard corrugated metal, partly with Robertson Thain's 'Galbestos,' and partly with the same firm's R.P.M. sheeting. One side of the building was loaded with combustible material which, on being lit, rapidly produced a maximum temperature of 2,450°F. The curtain unrolled, the ventilators switched on in the compartment containing the fire, and after half an hour's burning the fire was put out and stock was taken of the damage. Briefly, it was established that the ventilators were able to clear the smoke and effect a reduction in temperature after ten minutes and that the asbestos curtain was able to hold the fire in check and to provide an effective shield against radiant heat. In the discussion which followed the tests a number interesting points were made. Cape Building Products Ltd., proposed that the incidence of fire curtains should be based on the LCC's requirement that no factory space should be greater than 250,000 cu. ft.—which means in effect a floor area of 10,000–12,000 sq. ft. The diagrams on the left, taken from Cape Building Products literature, shows three ways in which this can be done. The cost of a fire wall 100 ft. long by 18 ft. high was given at about £1,300–£1,500. Another point discussed was how to get the smoke away in a multi-storey factory. Granted that it is essential to eject it through the roof, the only acceptable suggestion put forward was that of Mr. Strauss of the New York Office of General Motors, which was to run a vertical duct adjoining the stair wall. Another important point which is as yet unsettled is the correct area of roof ventilation. It seemed agreed that this should be related to the fire load. The only figures given were those attributed to General Motors, who were reported to be working on a 2 per cent area for a 'low fire load' and 5 per cent for a 'high fire load' in their factories in America, reducing these figures to 1½ per cent and 3 per cent respectively in their factories in this country. In all this was a very worth while event. If all British manufacturers were to interpret their interests in this intelligent and helpful way, how much more rapidly would our building technology advance!

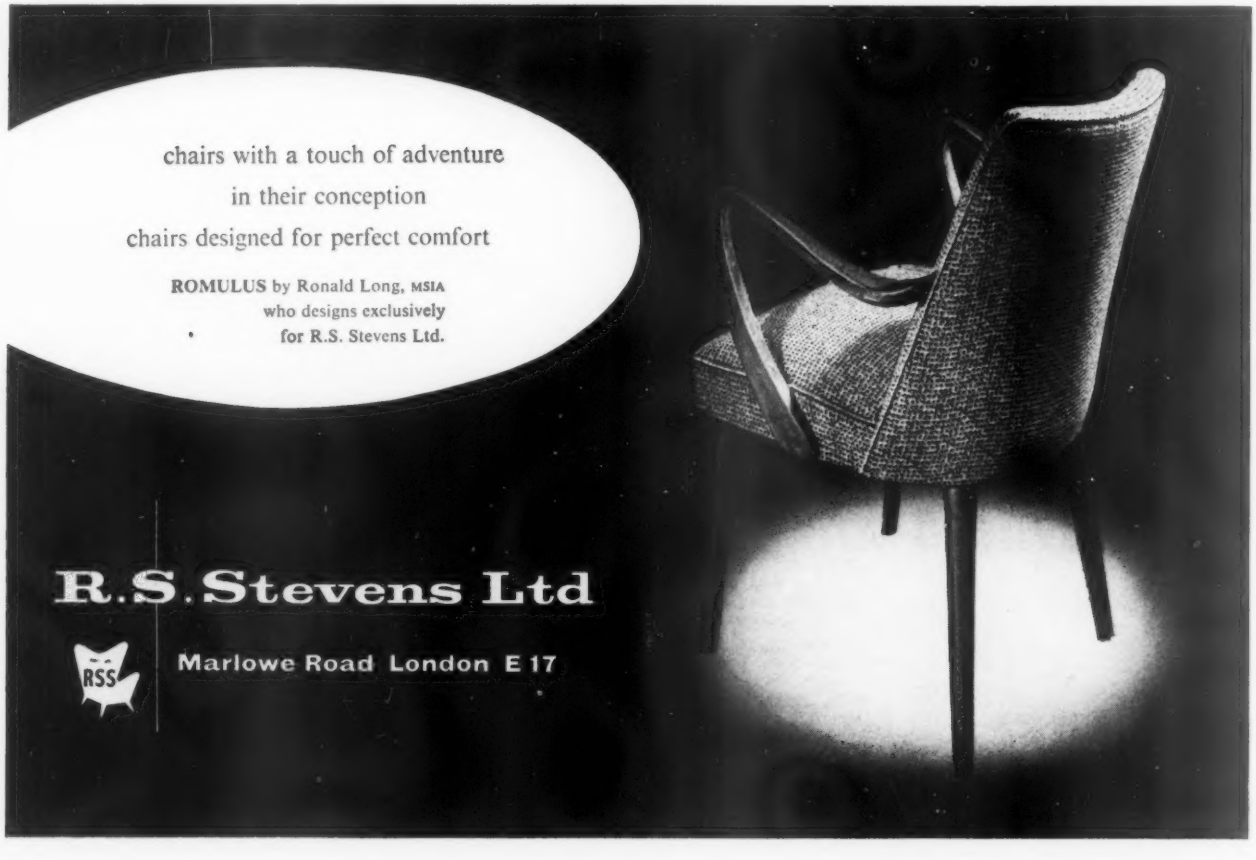
Cape Building Products Ltd., Cowley Bridge Works, Uxbridge, Middlesex.

Colt Ventilation Ltd., Surbiton, Surrey.

Pierhead Flat Slab

The desire for flat uninterrupted ceilings which was originally based on aesthetic motives and was therefore somewhat ridiculed in those circles where aesthetics are traditionally disregarded, has now proved to be at

[continued on page 150



Fibreglass behind the iron curtain

Why was Fibreglass lining used for the Rustless Iron Company's curtain-walling in the new Allnatt Office Block at Park Royal? Approximately two hundred panels of various sizes are backed with ¾" Fibreglass resin bonded slab.

The answer lies in the exceptional "k" value and very light weight of Fibreglass. In curtain-walling it can give a "U" value of 0·20—or better: the equal of 32" of solid brickwork—or more!

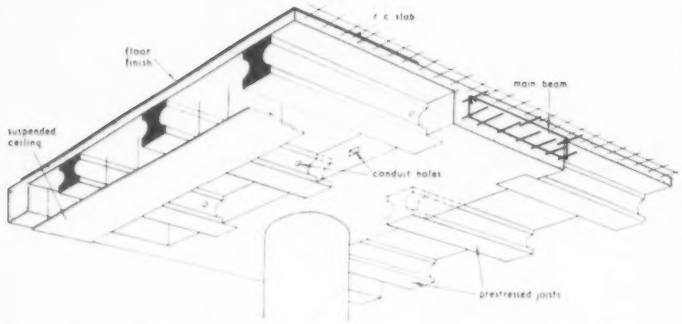
Fibreglass resin bonded slabs are supplied to fit all sizes of panels—for pre-fabrication by curtain-walling manufacturers, or direct to the building site.

Line that curtain wall with

FIBREGLASS LIMITED,
ST. HELENS, LANCS. ST. HELENS 4224.

FIBREGLASS TRADE MARK

thermal insulation



Isometric diagram of Pierhead Flat Slab construction.

continued from page 148]

once practicable and a great money saver. A new method for producing a flat ceiling economically has been designed by C. J. Pell and Partners for a ten-storey office building in the Edgware Road and has now been taken up by Pierhead Ltd. (whose precast prestressed concrete joists are used in it) and presented as a 'system' which may be adopted by anyone. Though it is called the Pierhead Flat Slab, purists might prefer to describe it as a 'shallow beam.' Flat *in situ* concrete slabs are set out at a spacing of up to 25 ft. centres and Pierhead precast prestressed concrete joists are laid with their ends cast into the slabs and their undersides flush with the undersides of the slabs. An *in situ* concrete floor is then laid over the beams and slab alike giving a total floor thickness of 10 in. The secret of a system of this kind lies in the reinforcement used, which is here composed of simple prefabricated units which avoid congestion at the junction of structural members and lend themselves to rapid assembly. Methods of this kind which combine a measure of prefabrication with a measure of *in situ* work have the great advantage that they avoid tolerance difficulties and therefore are well adapted to the present state of the building industry.

Pierhead Ltd., Feltham, Middlesex.

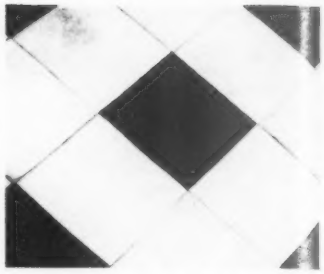
TV Aerials that you don't see

Though TV aerials have ceased to be funny (for, surely, all the possible jokes have been made about them) they have not ceased to be ugly and obtrusive, and as they become daily more and more numerous the case for stowing away as many as possible out of sight becomes more overwhelming. A booklet issued jointly by the Radio and Electronic Component Manufacturers and the British Radio Equipment Manufacturers Association entitled 'Television Aerials Outdoor or Indoor' discusses the different types of aerial and the situation in which each is likely to fill the bill. The moral seems to be that it is essential to have tests before you choose your aerial type and that, if you are at all sensitive and public-spirited, you will choose the loft or room type if the tests show their use to be feasible. Generally speaking they will prove satisfactory where the signal is strong, interference is slight, and the country is not too hilly. One indoor aerial which has proved satisfactory in a wide range of conditions is the Labgear Bi-square made by Labgear (Cambridge) Ltd., a subsidiary of the Pye group. This is suitable for Band I reception only, though the firm also market another version, Labgear Model 309 L which is designed for Band III reception.

Labgear (Cambridge) Ltd., Willow Place, Cambridge.

Leather Floor Tiles

The general rise in price of good flooring materials and perhaps the discovery that some of the strongest competitors in this field are surprisingly difficult to keep clean, have prompted the leather industry to try whether the public will take to leather tiles. Using the same type of leather as is used for the soles of shoes, Barrow-Hepburn and Gale Ltd. now market a range of 6-in. square leather 'tiles' in natural brown, black and a range of strong colours. These tiles, which are leather all through of a thickness of perhaps $\frac{3}{16}$ in., can be stuck direct to wood or to a cement screed. They cost 2s. each (i.e. 72s. per square yard unlaid), are very resistant to all normal abrasion or scuffing, and are, as you would expect, warm and exceedingly pleasant to walk on. Furthermore, they are easy to keep clean. One misfortune of the present range is that the coloured finish tends to obscure the grain, so that unless you are told, you might not realize that you were walking on something unusual. With the natural colour finish (which can be seen in the photograph, alternating with black) you are in no doubt, and the total effect is sufficiently admirable to deserve consideration.



Leather floor tiles in natural hide and black

Barrow-Hepburn and Gale Ltd., Grange Tannery, The Grange, London, S.E.1.

CONTRACTORS etc

Village Housing in Suffolk. *Architects:* Richard Llewelyn Davies and John Weeks. *Executive Architect:* Michael Huckstepp. *Contractor on*

[Continued on page 152

ABOUT CARPETS NOW . . .

. . . this design was created in our Kidderminster Studio to the requirements of James A. Roberts, A.R.I.B.A., Chartered Architects, and was made up in DEVA Fine Woollen Wilton especially for the Clifton Cinema at Leamington Spa. The carpet was supplied and laid by W. W. Turner & Company, the theatre furnishers.

Our Showroom and Studio at Kidderminster and our Showrooms at London, Manchester and Glasgow are at the service of architects who can view our complete ranges of all qualities of carpets and commission their own designs and colours. No charge is made for these services provided a reasonable yardage is involved, and we will gladly advise on the quality most suitable for the anticipated traffic and the life required.

A wide range of quality carpets is made by Carpet Trades Limited. Among these, the best known to architects for contract work are perhaps :—

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DEVA, Karinda and Karasta Fine Woollen Wiltons
SARONA, "733" Quality Heavy Woollen Wiltons
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TEMPO Contemporary patterned Wilton Broadloom. 6 designs supplied by return from stock in 5 widths up to 12 ft. wide.

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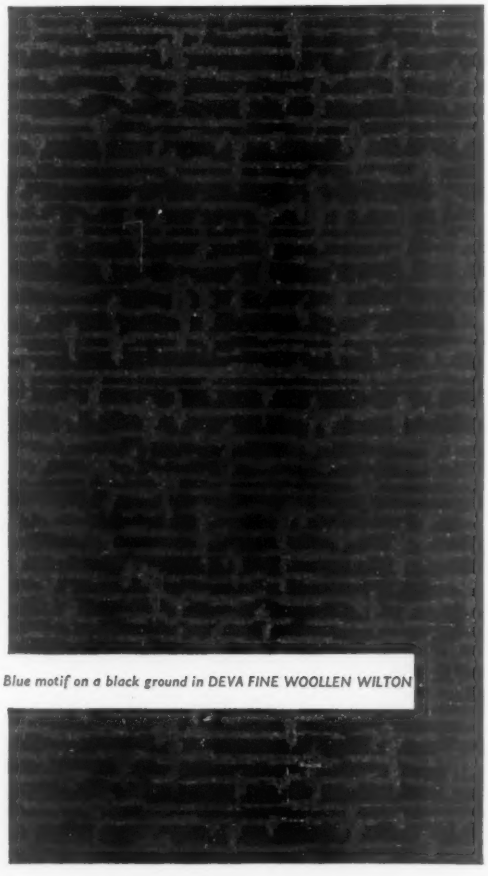
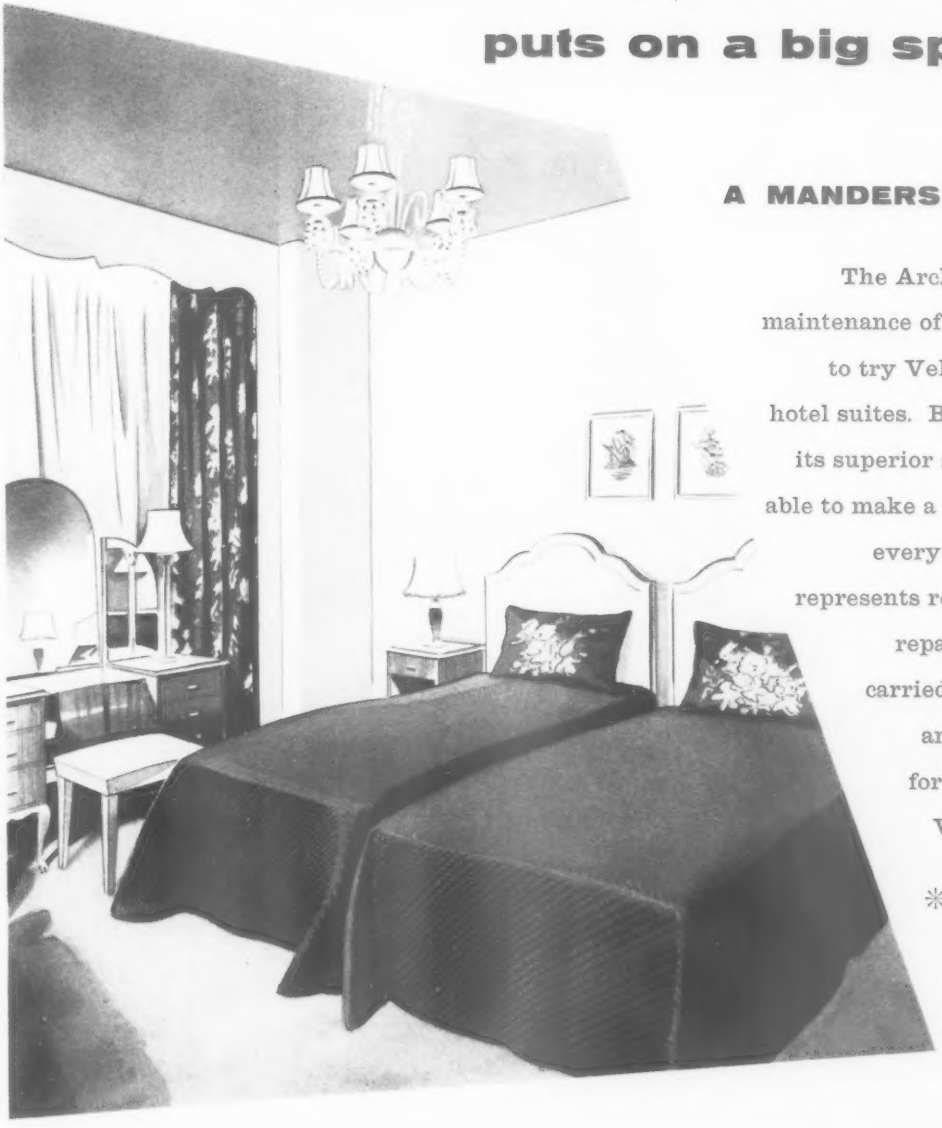


Blue motif on a black ground in DEVA FINE WOOLLEN WILTON

HOTELS ARCHITECT

puts on a big spread!



A MANDERS' CASE HISTORY

The Architect responsible for the maintenance of a chain of hotels decided to try Velosheen for re-decorating hotel suites. By using Velosheen, with its superior spreading power, he was able to make a saving of ½ to ¾ gallon on every suite re-decorated. This represents real economy where large repainting contracts must be carried out at regular intervals and the architect arranged for further consignments of Velosheen to be supplied.

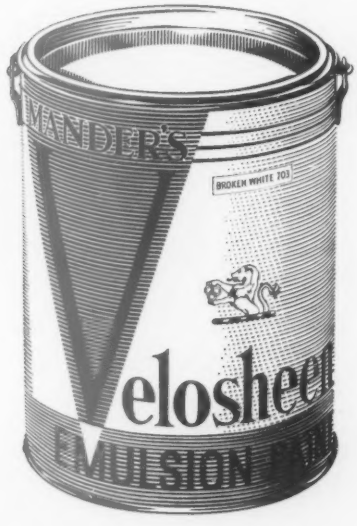
✳

Ask for further information on this superb Emulsion Paint. Details will be posted to you immediately.

in every case...

VELOSHEEN

proves the best



MANDER BROTHERS LTD. (Dept. F8), WOLVERHAMPTON
Telephone: Wolverhampton 20601

two completed houses: F. A. Valiant. *Contractor on village:* Harvey G. Frost. *Quantity surveyors:* Davis, Belfield and Everest. *Sub-contractors on two completed houses: Sanitary fittings:* Dent & Hellyer. *Semastic tiles and floor covering:* Horsley Smith & Co. *Kitchen fitments:* John Sadd. *Ironmongery:* Alfred G. Roberts. *Electrical installation:* Eastern Electricity Board.

Training College at Wimbledon. *Architects:* Yorke, Rosenberg and Mardall. **Memorial Hall.** *General contractors:* Hall, Bedall & Co. *Sub-contractors: Asphalt tanking and pitch mastic flooring:* Excel Asphalte Co. *Built-in fittings and sliding folding partitions:* Rippers, Ltd. *Concrete tiles:* Jaconello, Ltd. *Cloak fittings and balustrades:* Clark, Hunt & Co. *Doors:* Gliksten Doors, Ltd. *Heating:* Norris Warming Co. *Hardwood flooring:* Hollis Bros., Ltd. *Stage lighting:* Strand Electric & Engineering Co. *Stage curtains and track:* Hall & Dixon, Ltd. *Suspended fibre board ceilings:* Sundeala Board Co. *Suspended plaster ceilings:* W. H. Colt (London), Ltd. *Windows—metal:* Aygee, Ltd. *Dividing screen, curtain glides and rails:* Tidmarsh & Sons. *Electrical equipment:* A. H. Cornwall & Sons. *Roofing:* Wm. Briggs & Sons. *Sanitary fittings:* Stitsons Sanitary Fittings, Ltd. *Stone facing:* S. Marshall & Sons. *Tiling:* Carter & Co. *W.C. partitions:* Mosaic and Terrazzo Co. **Lecture Block.** *General contractor:* C. J. Sims, Ltd. *Sub-contractors: Electrical installation:* A. H. Cornwall & Sons. *Heating, hot and cold water and gas installation:* Z. D. Berry & Sons. *Laboratory fittings:* Baird & Tatlock, Ltd. *Felt roofing:* William Briggs & Sons. *Boiler chimney:* Chimneys, Ltd. *Terrazzo paving and partitions:* The Mosaic and Terrazzo Precast Co. *Suspended ceilings:* Roof and Lining Construction, Ltd. *Wood block flooring:* R. W. Brooke & Co. *Joinery fittings:* William Lacey, Ltd., *Window blinds:* Tidmarsh & Sons. *Greenhouse:* William Wood & Son. *Mild steel louvred sunbreaks and mild steel balustrades:* S. W. Farmer & Son. *'Colterra' lathing:* Scaffolding (Great Britain), Ltd. *Wall tiling:* Carter & Co. *Suppliers: Ironmongery:* Alfred G. Roberts, Ltd. *York stone facing slabs:* S. Marshall & Sons. *Casement windows:* Tomo Trading Co. *Flush doors:* Veneercraft, Ltd. *Sliding folding doors:* William Lacey, Ltd. *Sliding door gear:* E. Hill Aldam & Co. *Sanitary fittings:* Stitsons Sanitary Fittings, Ltd. *Domed roof lights:* Aygee, Ltd. *Bricks:* Richard Parton, Ltd.

Coach Hotel at Dover. *Architect:* Louis Erdi. *Assistant-in-charge:* Alan S. Fairbrass. *Contractor:* R. J. Barwick. *Quantity Surveyors:* Harris, Rourke & Simpson; *partner in charge:* Mr. Spiller; *assistant in charge:* Mr. Saw. *Structural engineer:* Dr. Hajmal-Konyi; (*assistant in charge:* Mr. Szmidt). *Electrical heating, ventilation, plumbing:* Advanced Heating and Air Conditioning Co. *Flooring:* Bennett's Wood Flooring Co.; Linoleum Manufacturing Co.; Limmer & Trinidad Lake Asphalt Co.; Horsley Smith & Co.; Marriott & Price, Ltd.; Marley Floor Tile Co. *Signs:* Bush Signs. *Windows:* East & Sons. *Lift:* Aldous & Campbell, Ltd. *Sanitary fittings:* Stitsons Sanitary Fittings, Ltd. *Facing slabs:* Cheecol Processes, Ltd. *Ironmongery:* Yannedis & Co. *Felt roofing:* Pilkington's Asphalt Co. *Cedar shingles and cladding:* Hall & Co. *Furniture and fittings:* Bobby & Co.; Maple & Co.; Nason's (Canterbury), Ltd. *Kitchen equipment and sundries:* South Eastern Gas Board; Radiation, Ltd.; W. M. Still & Sons; Wm. Page & Co. *Refrigeration:* Windsor Refrigerator Co.; Longford Engineering Co. *Cash registers:* F. Stevenson & Sons (Manchester), Ltd. *Fire appliances:* Pyrene Co. *Blankets:* J. Churchward & Sons. *Crockery and glass:* H. Hart & Co. *Cutlery:* Alexander Clark & Co. *Cleaning equipment:* Hoover & Co. *Radio:* Sound Diffusion, Ltd. *Television:* Rediffusion (South East) Ltd.

Filling station at Swanley, Kent. *Architects:* John Burkett, Gordon Sheere and R. W. Wilkinson; *assistant architect:* Susan Walker. *Sub-contractors: Metal windows,* S. Warner & Sons. *Furniture:* Peter B. Sedgley. *Lighting:* Troughton & Young. *Ironmongery:* Alfred Roberts, Ltd. *Roofing felt:* Ruberoid, Ltd. *Glass dome:* T. W. Ide.

Fire and Ambulance Station at Slough. *County architect:* F. B. Pooley. *General contractors:* W. J. Simms Sons & Cooke, Ltd. *Sub-contractors: Asphalt roofing felt:* Permanite, Ltd. *Stone:* Croft Granite & Brick Co. *Special roofing:* Holloway Metal Roofs, Ltd. *Glass:* Mustill Wallis. *Patent glazing (roof lights):* William J. Cox, Ltd. *Structural steel:* Boulton & Paul, Ltd. *Patent flooring:* Marley Tile Co. Ltd.; Semtex, Ltd.; Hollis Bros., Ltd. *Central heating:* Weatherfoil Heating Systems. *Electric light fixtures:* Merchant Adventurers, Ltd.; C. M. Churchouse, Ltd.; Falk Stadelmann, Ltd. *Stairtreads:* Small & Parkes, Ltd. *Plumbing, joinery:* W. J. Simms, Sons & Cooke, Ltd. *Door furniture:* Alfred G. Roberts, Ltd.; Comyn Ching & Co. *Casements, window furniture:* Hywards, Ltd. *Roller shutters:* G. Bradly & Co. *Sanitary fittings:* John Knowles & Co. *Tiling:* Teuten-Davis & Bennett. *Wallpaper:* Coles, Ltd. *Sun blinds (venetian blinds):* J. Avery & Co. *Paint:* Hadfields, Ltd.

Shipping Offices in Cockspur Street, S.W.1. *Architect:* John Wright. *General contractor:* Frederick Sage & Co. *Sub-contractors: Slates:* Westmoreland Slate Co. *Glass:* F. Sage & Co. *Patent flooring:* Korkoid Decorative Floors. *Electric wiring:* Globe Electric, Ltd. *Electric light fixtures:* General Electric Co.; F. Sage & Co. *Door furniture:* James Gibbons; F. Sage & Co. *Fireproof doors, metalwork, joinery, shop and office fittings, signs:* F. Sage & Co. *Textiles and carpets:* Russell Furnishings. *Wallpapers:* Coles. *Furniture:* Trollope; F. Sage. *Clocks:* Thomas Mercer.

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ARCHITECTURAL ASSISTANT

Senior Assistant is required to work under the direction of the Society's Architect. He must be up to final R.I.B.A. standard and with experience in industrial and commercial work. Applications giving full details of age, experience, etc., should be sent to Personnel Officer, Birmingham Co-operative Society Ltd., High Street, Birmingham, 4.